

AD A 125957

DEPARTMENT OF THE AIR FORCE

JUSTIFICATION OF ESTIMATES FOR FISCAL YEAR 1984
SUBMITTED TO CONGRESS JANUARY 1983



DTIC FILE COPY

Aircraft Procurement, Air Force

DTIC
ELECTE

MAY 1983

This document has been approved
for publication and sale by
the Department of Defense.

88 03 21 096

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER RDXJ-AC-84-2	2. GOVT ACCESSION NO. AD-A125937	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Justification of Estimates for Fiscal Year 1984 Submitted to Congress January 1983: Aircraft Procurement		5. TYPE OF REPORT & PERIOD COVERED FINAL 1 Oct 83 - 30 Sep 84
		6. PERFORMING ORG. REPORT NUMBER NA
7. AUTHOR(s) Mr. Robert Stuart		8. CONTRACT OR GRANT NUMBER(s) In-house report
9. PERFORMING ORGANIZATION NAME AND ADDRESS AF/ACBMC Washington, DC 20330		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NA
11. CONTROLLING OFFICE NAME AND ADDRESS AF/ACBMC Washington, DC 20330		12. REPORT DATE Jan 83
		13. NUMBER OF PAGES 208
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) AF/ACBMC Washington, DC 20330		15. SECURITY CLASS. (of this report) Unclassified
		16. DECLASSIFICATION/DOWNGRADING SCHEDULE NA
16. DISTRIBUTION STATEMENT (of this Report) Distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Justification of Estimates for Fiscal Year 1984 Aircraft Procurement ✓ THIS REPORT		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Provides justification of estimates for fiscal year 1984 aircraft procurement.		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

DEPARTMENT OF THE AIR FORCE
AIRCRAFT PROCUREMENT, AIR FORCE

TABLE OF CONTENTS

Appropriation Language	1
Basic Program & Financing	2
Basic Object Classification	3
Program & Financing:	
1980 Fiscal Year Program	4
1981 Fiscal Year Program	5
1982 Fiscal Year Program	6
1983 Fiscal Year Program	7
1984 Fiscal Year Program	8
Budget Activity Justification:	
Combat Aircraft	9
Airlift Aircraft	12
Trainer Aircraft	14
Other Aircraft	15
Modification of In-Service Aircraft	17
Aircraft Spares & Repair Parts	27
Aircraft Support Equipment & Facilities	32
Comparison of FY 1983 Program Requirements and Financing	60
Comparison of FY 1982 Program Requirements and Financing	64
Flight Simulator Procurement Program	67
Modification of Aircraft - Detailed Justification	70

Accession For	
NTIS GRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A	

AIRCRAFT PROCUREMENT, AIR FORCE

For construction, procurement, and modification of aircraft and equipment including armor and armament, specialized ground handling equipment and training devices, spare parts, and accessories therefor; the U.S. share of the NATO AWACS program; specialized equipment, expansion of public and private plants, Government-owned equipment and installation thereof in such plants, erection of structures, and acquisition of land without regard to section 977 of title 10, United States Code, for the foregoing purposes, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to the approval of title as required by section 355, Revised Statutes, as amended; reserve plant in Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes including rents and transportation of things; \$22,707,190,000, of which \$112,100,000 shall be available for contribution of the United States share of the cost of the acquisition by the North Atlantic Treaty Organization of an Airborne Early Warning and Control System (AW/ES) and, in addition, the Department of Defense may make a commitment to the North Atlantic Treaty Organization to assume the United States' share of contingent liability in connection with the NATO E-3A Cooperative Programme, to remain available for obligation until September 30, 1986 (5 U.S.C. 3109; 10 U.S.C. 2271-79; 2353, 2386, 2663, 2672, 2672a, 8012, 8062, 9501-02, 9505, 9531-72, 9741-42; 31 U.S.C. 649c, 718; 50 U.S.C. 451, 453, 455; Department of Defense Appropriation Act, 1983, additional authorizing legislation to be proposed).

AF

Aircraft Procurement, Air Force

31 JAN 83

Program and Financing (in thousands of dollars)					Summary		
Identification code	57-3010-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities:							
Direct:							
1.	Combat aircraft	5 314,000	8,557,300	10,473,500	4,026,280	8,440,425	9,490,999
2.	Airlift aircraft	109,500	1,116,500	1,349,500	99,051	849,137	1,215,640
3.	Trainer aircraft	.....	.....	5,800	.....	.....	4,350
4.	Other aircraft	194,500	173,800	240,700	289,888	162,725	233,204
5.	Modification of inservice aircraft	2,166,800	2,473,600	3,208,800	2,073,426	2,354,392	3,085,169
6.	Aircraft spares and repair parts	3,599,600	3,525,000	5,128,800	3,053,286	3,343,130	4,673,596
7.	Aircraft support equipment and facilities	1,972,198	1,746,100	2,300,090	1,636,765	1,710,700	2,236,308
Total direct		13,656,598	17,655,300	22,707,190	11,210,496	16,860,516	21,161,258
Reimbursable program		339,397	378,900	408,000	289,983	375,222	359,646
10.0001	Total	13,997,995	17,974,200	23,113,190	11,500,479	17,235,738	21 520,904
Financing:							
Offsetting collections from:							
11 0001	Federal funds	-55,910	-25,910	-29,000	-57,553	-25,910	-29,000
13 0001	Trust funds	-283,192	-315,100	-336,400	-168,455	-315,100	-336,400
14 0001	Non-federal sources	-295	-37,890	-40,600	-318	-37,890	-40,600
17 0001	Recoveries of prior year obligations(-)	.....	.....	.....	-98,680	.....	.....
Unobligated balance available, start of year:		.....	.....	.....	.....	.....	.....
21 4001	For completion of prior year budget plans	.....	.....	.....	-2,227,726	-4,664,702	-5,403,164
21 4002	Available to finance new budget plans	-162,900	-170,000	.....	-162,900	-170,000	.....
21 4003	Reprogramming from or to prior year budget plan	-44,149	.....	.....	.....	.....	.....
22.4001	Unobligated balance transferred from other accounts(-)	.....	-170,000	.....	.....	-170,000	.....
23 4001	Unobligated balance transferred to other accounts	36,440	170,000	.....	36,440	170,000	.....
Unobligated balance available, end of year:		.....	.....	.....	.....	.....	.....
24.4001	For completion of prior year budget plans	.....	.....	.....	4,664,702	5,403,164	6,895,450
24 4002	Available to finance subsequent year budget plans	170,000	.....	.....	170,000	.....	.....
25 0001	Unobligated balance lapsing	170,609	170,000	.....	170,609	170,000	.....
39 0001	Budget authority	13,628,598	17,595,300	22,707,190	13,628,598	17,595,300	22,707,190
Budget authority:							
40 0001	Appropriation	13,938,998	17,658,500	22,707,190	13,938,998	17,658,500	22,707,190
40 0002	Reduction pursuant to P L 97-377	.....	-101,100	.....	.....	-101,100	.....
41 0001	Transferred to other accounts(-)	-200,100	-132,100	.....	-200,100	-132,100	.....
43.0001	Appropriation (adjusted)	13,738,898	17,425,300	22,707,190	13,738,898	17,425,300	22,707,190
60 0001	Reappropriation	89,700	170,000	.....	89,700	170,000	.....
Reversion of obligations to outlays:							
71.0001	Obligations incurred, net	.....	.....	.....	11,274,153	16,856,838	21,114,904
72 4001	Obligated balance, start of year	.....	.....	.....	11,955,175	13,523,537	17,913,875
74 4001	Obligated balance, end of year	.....	.....	.....	-13,523,537	-17,933,876	-22,600,579
77 0001	Adjustments in expired accounts	.....	.....	.....	15,252	.....	.....
78 0001	Adjustments in unexpired accounts	.....	.....	.....	-96,680	.....	.....
88 0001	Outlays	.....	.....	.....	9,674,264	12,446,600	15,379,400

AF

Aircraft Procurement, Air Force

31 JAN 83

Object Classification (in thousands of dollars)		Summary		
Identification code	57-0010-0-1-051	1982 actual	1983 est	1984 est
Direct obligations:				
131.001	Equipment	11,210,496	16,860,516	21,161,238
199.001	Total direct obligations	11,210,496	16,860,516	21,161,238
Reimbursable obligations:				
231.001	Equipment	269,983	375,222	359,643
999.001	Total obligations	11,500,479	17,235,738	21,520,904

AF

Aircraft Procurement, Air Force

31 JAN 83

Program and Financing (in thousands of dollars)				1980 Fiscal year program			
Identification code	57-3010-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities:							
Direct:							
1.	Combat aircraft	.....	.....	.....	170,517	.....	.....
4.	Other aircraft	.....	.....	.....	6,993	.....	.....
5.	Modification of inservice aircraft	.....	.....	.....	116,475	.....	.....
6.	Aircraft spares and repair parts	.....	.....	.....	34,566	.....	.....
7.	Aircraft support equipment and facilities	.....	.....	.....	56,588	.....	.....
Total direct		.....	.....	.....	387,141	.....	.....
Reimbursable program		.....	.....	.....	12,782	.....	.....
10 0001	Total	.....	.....	.....	399,923	.....	.....
Financing:							
Offsetting collections from:							
11 0001	Adjustment to prior year federal fund orders	.....	.....	.....	-7,670	.....	.....
13 0001	Adjustment to prior year trust fund orders	.....	.....	.....	61,249	.....	.....
14 0001	Adjustment to non-federal sources	.....	.....	.....	-4	.....	.....
17 0001	Reversals of prior year obligations(-)	.....	.....	.....	-26,002	.....	.....
Unobligated balance available, start of year:		.....	.....	.....	.....	.....	.....
21 4001	For completion of prior year budget plans	.....	.....	.....	-506,205	.....	.....
21 4002	Available to finance new budget plans	-36,100	.....	.....	-36,100	.....	.....
21 4003	Reprogramming from or to prior year budget plan	-80,909	.....	.....	.....	.....	.....
23 4001	Unobligated balance transferred to other accounts	36,100	.....	.....	36,100	.....	.....
25 0001	Unobligated balance lapsing	80,909	.....	.....	80,909	.....	.....
40.0001	Budget authority	.....	.....	.....	.....	.....	.....

AP

Aircraft Procurement, Air Force

31 JAN 63

Program and Financing (in thousands of dollars)				1961 Fiscal year program			
Identification code	57-3010-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1962 actual	1963 est.	1964 est.	1962 actual	1963 est.	1964 est.
Program by activities:							
Direct:							
	1. Combat aircraft				286,202	317,060	
	2. Airlift aircraft				404	3,454	
	4. Other aircraft				103,642	18,321	
	5. Modification of inservice aircraft				322,119	190,552	
	6. Aircraft spares and repair parts				103,745	106,461	
	7. Aircraft support equipment and facilities				153,385	120,691	
	Total direct				971,467	764,445	
	Reimbursable program				30,951		
10.0001	Total				1,002,418	764,445	
Financing:							
Offsetting collections from:							
11.0001	Adjustment to prior year federal fund orders				6,227		
13.0001	Adjustment to prior year trust fund orders				53,486		
14.0001	Adjustment to non-federal sources				-19		
17.0001	Recoveries of prior year obligations(-)				-70,678		
	Unobligated balance available, start of year:						
21.4001	For completion of prior year budget plans				-1,719,52	-764,645	
21.4002	Available to finance new budget plans	-126,800			-126,800		
21.4003	Reprogramming from or to prior year budget plan	36,760					
23.4001	Unobligated balance transferred to other accounts	90,346			90,040		
24.4001	Unobligated balance available, end of year				764,845		
40.0001	Budget authority						

AF

Aircraft Procurement, Air Force

31 JAN 83

Program and Financing (in thousands of dollars)				1982 Fiscal year program			
Identification code	57-3010-0-1-051	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities:							
Direct:							
1.	Combat aircraft	5,314,000			3,539,561	1,656,578	85,661
2.	Airlift aircraft	109,500			96,677	8,308	2,543
4.	Other aircraft	194,500			159,051	14,054	21,395
5.	Modification of inservice aircraft	2,168,800			1,634,832	300,647	233,321
6.	Aircraft spares and repair parts	3,899,800			2,914,975	590,669	393,556
7.	Aircraft support equipment and facilities	1,972,198			1,474,622	280,434	210,942
Total direct		13,658,898			9,851,688	2,852,690	954,020
Reimbursable program		339,397			246,260	91,047	2,100
10.0001	Total	13,997,995			10,098,138	2,943,737	956,120
Financing:							
Offsetting collections from:							
11.0001	Federal funds	-55,910			-55,910		
13.0001	Trust funds	-283,192			-283,192		
14.0001	Non-federal sources	-295			-295		
Unobligated balance available, start of year:							
21.4001	For completion of prior year budget plans					-3,899,857	-956,120
21.4002	Available to finance new budget plans		-170,000			-170,000	
23.4001	Unobligated balance transferred to other accounts	-89,700	170,000		-89,700	170,000	
Unobligated balance available, end of year:							
24.4001	For completion of prior year budget plans				3,899,857	956,120	
24.4002	Available to finance subsequent year budget plans	170,000			170,000		
23.0001	Unobligated balance lapsing	89,700			89,700		
39.0001	Budget authority	13,828,598			13,828,598		
Budget authority:							
40.0001	Appropriation	13,938,898			13,938,898		
41.0001	Transferred to other accounts(-)	-200,100			-200,100		
43.0001	Appropriation (adjusted)	13,738,698			13,738,698		
50.0001	Reappropriation	89,700			89,700		

AF

Aircraft Procurement, Air Force

31 JAN 83

Program and Financing (in thousands of dollars)

1983 Fis. year program

Identification code	57-3010-0-1-0d1	Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities:							
Direct:							
1.	Combat aircraft		8,537,300		6,464,441	1,521,091	
2.	Airlift aircraft		1,116,500		837,575	278,925	
4.	Other aircraft		173,800		130,300	43,500	
5.	Modification of inservice aircraft		2,473,600		1,655,200	818,400	
6.	Aircraft spares and repair parts		3,528,000		2,646,000	882,000	
7.	Aircraft support equipment and facilities		1,746,100		1,309,575	436,525	
	Total direct		17,595,300		13,242,981	3,148,531	
	Reimbursable program		373,900		264,175	109,725	
10 0001	Total		17,974,200		13,527,156	3,258,256	
Financing:							
Offsetting collections from:							
11.0001	Federal funds		-25,910		-25,910		
13.0001	Trust funds		-315,100		-315,100		
14.0001	Non-federal sources		-37,890		-37,890		
21.4001	Unobligated balance available, start of year						-4,447,044
22.4001	Unobligated balance transferred from other accounts(-)		-170,000		-170,000		
24.4001	Unobligated balance available, end of year				4,447,044	1,245,167	
25.0001	Unobligated balance lapsing		170,000		170,000		
39.0001	Budget authority		17,595,300		17,595,300		
Budget authority:							
40.0001	Appropriation		17,658,500		17,658,500		
40.0002	Reduction pursuant to P.L. 97-377		-101,100		-101,100		
41.0001	Transferred to other accounts(-)		-162,100		-162,100		
43.0001	Appropriation (adjusted)		-25,300		-25,300		
50.0001	Reappropriation		170,000		170,000		

AF

Aircraft Procurement, Air Force

31 JAN 83

Program and Financing (in thousand us of dollars)				1984 Fiscal year program			
Identification code		Budget plan (amounts for procurement actions programmed)			Obligations		
		1982 actual	1983 est.	1984 est.	1982 actual	1983 est.	1984 est.
Program by activities.							
Direct							
1	Combat aircraft			10,473,500			7,883,139
2	Airlift aircraft			1,349,500			1,012,125
3	Trainer aircraft			5,600			4,310
4	Other aircraft			240,700			180,525
5	Modification of inservice aircraft			3,208,800			2,405,600
6	Aircraft spares and repair parts			5,128,800			3,815,600
7	Aircraft support equipment and facilities			2,300,000			1,729,008
Total direct				22,707,190			17,058,407
Reimbursable program				406,000			304,502
10 0001	Total			23,113,190			17,362,907
Financing.							
Offsetting collections from:							
11 0001	Federal funds			-29,000			-29,000
13 0001	Trust funds			-336,400			-336,400
14 0001	Non-federal sources			-40,600			-40,600
24 4001	Unobligated balance available, end of year						5,750,983
40 0001	Budget authority			22,707,190			22,707,190

(In Thousands of Dollars)

Program Requirement - FY 85 ...	\$14,148,200
Program Requirement - FY 84 ...	10,473,500
Program Requirement - FY 83 ...	8,557,300
Program Requirement - FY 82 ...	5,314,000

ACTIVITY: Combat Aircraft

PART I PURPOSE AND SCOPE

This activity provides for the procurement of new aircraft, associated flight simulation devices, and other peculiar training and support equipment to continue modernization of U.S. combat forces and to improve the efficiency of training programs.

Combat aircraft are required to attain and maintain air superiority, interdict enemy supply lines, provide reconnaissance of enemy forces, and furnish close air support to ground forces. The aircraft can be used to counter a variety of threats and offer options of response ranging from the use of diversified conventional weapons through, in the case of U.S. forces, a variety of nuclear weapons.

The FY 1984 and FY 1985 programs include funds for the procurement of B-1B, F-15, F-16, Tactical Fighter Derivative, KC-10A, MC-130H, and E-3A (AWACS) aircraft. The programs also include funds for procurement of flight simulators for F-15, F-16, and KC-10A aircraft. The F-15 request initiates a multiyear procurement program. The B-1B and KC-10A requests incorporate the second year of multiyear procurement in those programs; the F-16 request incorporates the third year of multiyear procurement.

PART II JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 and FY 1985 fund requirements for procurement of combat aircraft, related support items, and advance procurement funding in support of the following year's program are: FY 1984 - \$10,473.5 million; FY 1985 - \$14,148.2 million. Details are as follow:

B-1B (FY 1984 - 10 aircraft, \$5,626.8 million; FY 85 - 34 aircraft, \$1,116.6 million):

The B-1B is a strategic multi-role weapon system which maximizes range and payload capabilities, and is able to perform the mission of conventional bomber, cruise missile launch platform, and nuclear weapons delivery system in both the tactical and strategic roles. Production of the B-1B addresses U.S. requirements to increase our targeting flexibility, to redress the relative decline of our strategic capabilities, and to revitalize our strategic deterrent. The B-1B program retains the important military characteristics of the manned bomber by modernizing the element of the strategic TRIAD capable of seeking out and destroying imprecisely-located, highly-valued targets. The combination of B-1B's higher penetration speed, reduced radar cross-section, and advanced electronic countermeasures will make it capable of serving as a penetrating bomber well into the 1990s when the Advanced Technology Bomber is projected to become available. Additionally, introduction of the B-1B retains in one arm of the U.S. strategic forces an accurate, global, non-nuclear capability which preserves our flexibility to adapt to unforeseen contingencies with a timely and economic projection of power. The B-1B will be capable of performing the conventional bomber and cruise missile

carrier mission well into the next century. This request is for the second year of a multiyear procurement program, if an FY 1983 supplemental request is approved for the initiation of that program. This multiyear procurement program will generate the necessary savings to ensure that the B-1B program of 100 aircraft, related initial spares, and research, development, test and evaluation can be achieved for \$20,500.0 million (FY 1981 dollars).

F-15A/B/C/D (FY 1984 - 48 aircraft, \$1,960.4 million; FY 1985 - 72 aircraft, \$2,869.6 million):

The F-15 is a twin engine, single crew, fixed swept wing aircraft designed specifically for high maneuverability in air-to-air combat. The F-15 is the first U.S. fighter aircraft to possess a takeoff thrust-to-weight ratio greater than one-to-one. Its two Pratt & Whitney F100 turbofan engines are each capable of thrust in the 25,000 lb. class. The F-15's low wing loading, the ratio of aircraft weight to its wing area, in combination with its high thrust-to-weight ratio, enables the F-15 to turn very tightly without losing air speed. The F-15's clean wing, with inboard flaps and outboard ailerons, provides the most efficient minimum-drag configuration at high lift in the transonic speed range. The F-15 is able to reach a dash speed of Mach 2.5. It is equipped with a balanced mix of medium and short range missiles and a rapid firing 20mm cannon. The avionics system includes an advanced radar, a visual head-up display, and an automatic built-in test system. Air-to-air tasks include continental air defense, combat air patrol, escort and fighter sweeps in or out of the enemy's ground-controlled intercept environment. It has replaced the F-4E as the primary air superiority fighter in the force structure. The F-15 has the maneuverability, armament, and fire control needed to surpass the expected capability of enemy aircraft in the 1980s. In a secondary role, the F-15 has an excellent ground attack capability. This request is for the initiation of a multiyear procurement program.

F-16 (Air Combat Fighter) (FY 1984 - 120 aircraft, \$1,962.9 million; FY 1985 - 120 aircraft, \$2,878.4 million):

The F-16 is a single engine, lightweight, high performance, multi-mission fighter capable of performing a broad spectrum of tactical air warfare tasks. The design characteristics of the F-16 are such as to permit high sortie rates with rapid turn around, minimum manpower/logistics burden, and exceptional air combat maneuvering performance, coupled with a potent air-to-ground weapons delivery capability. The F-16 will also enable modernization and standardization of equipment among those allied countries which choose to replace their aging tactical fighter forces with F-16s. This request is for the third increment of the F-16 Multiyear Procurement program. The FY 1984 advance procurement request includes \$30.0 million, which provides the capability to surge the F100 engine production. These funds will be used to procure the long lead components that will be used in a rotating pool of parts.

Tactical Fighter Derivative (FY 1984 - \$21.4 Million; FY 1985 - \$76.1 Million):

Derivatives of the F-15 and F-16 will offer significant improvement in range, payload and the ability to operate at night and in weather on interdiction missions while retaining their capability to perform the all-weather, air superiority mission. The F-15/F-16 Derivative aircraft are being flight tested and evaluated for application to the air-to-surface role. Flight testing is scheduled for completion in mid-1983. Requests for Proposals (RFPs) will be issued to contractors in early 1983 with responses due in 60 to 90 days. Following a design, technical, operational, and affordability evaluation, results and recommendations will be forwarded in June 1983 to Headquarters, United States Air Force for decision. Results of the evaluation will be briefed to the appropriate Congressional committees as soon as possible to support the FY 1984 Budget Request. The FY 1984 and FY 1985 funds will be used to augment either the F-15 or F-16 programs to properly fund the increased requirements for the Fighter Derivative.

KC-10A (Advanced Tanker-Cargo Aircraft) (FY 1984 - 8 aircraft, \$759.0 million; FY 1985 - 8 aircraft, \$659.0 million):

The KC-10A Advanced Tanker/Cargo Aircraft is a production-line McDonnell Douglas DC-10 modified only as necessary to provide an air refueling capability and to fully exploit the aircraft's cargo carrying potential. It is an aircraft of unique versatility, capable of providing both long range air refueling and airlift support. Its air refueling off-load capability will permit deployment and reinforcement of U.S. military forces without reliance on uncertain intermediate foreign basing rights. Combining its large cargo and fuel off-load potential, the KC-10A provides a capability to deploy tactical fighter forces and their support equipment simultaneously, ready to fight. Additionally, the KC-10A will significantly expand U.S. strategic airlift capacity, particularly with respect to long range movement of oversize cargo, when not otherwise involved in air refueling operations. This request is for the second increment of a multiyear procurement program.

MC-130H (FY 1984 - 2 aircraft, \$66.8 million; FY 1985 - 2 aircraft, \$92.6 million):

This aircraft is a medium size transport used for special tactical missions. It is powered by four T-56-A-15 turboprop engines. It has a ferry range of approximately 4,200 nautical miles, a service ceiling of 35,000 feet, and a cruise speed of 290 knots. Its cargo compartment length, width and height are 41, 10, and 9 feet respectively, and can carry a payload of 30,000 pounds. The normal crew of seven consists of a pilot, a co-pilot, flight engineer, one navigator, electronic warfare officer, and two loadmasters. Aircraft features include an integral ramp and cargo door, crew and cargo compartment pressurization, ground and in-flight air conditioning, thermal de-icing system, single-point refueling, and auto pilot. Additional features of this specially modified C-130 are precision navigation, terrain following radar, Electronic Counter Measures (ECM) subsystems and in-flight refueling.

E-2A (AWACS) (FY 1984 - 0 aircraft, \$76.2 million; FY 1985 - 3 aircraft, \$455.9 million):

The AWACS provides an airborne surveillance, command, control, and communications system consisting of special avionics and a large surveillance radar installed in a modified Boeing 707-320B airframe. The aircraft is powered by four Pratt and Whitney TF33 engines, each with a maximum thrust of 27,000 lbs. The cruise altitude is 29,000 to 32,000 feet and the aircraft can remain on station for 6 hours at 1000 nautical miles from base. The normal crew size is 17, which includes a 4 man flight crew and a 13-man mission crew. Tactical forces will use AWACS for command and control (a) during movement of a Tactical Strike Force, (b) while achieving and maintaining air superiority in a battle area, (c) while providing direct air support to ground forces, and (d) while accomplishing rescue and airlift missions. Its flexibility and versatility will enable it to be rapidly deployed at any level of military action ranging from a show of force through general war. Strategic defensive forces will use AWACS in conjunction with interceptor forces for the wartime defense of the CONUS and as an integrated element of the mobile air defense force contingencies requiring strategic defense outside the United States. The airborne platform is common for both defensive and tactical operations. Software in the central processor provides flexibility to accomplish both missions. The system is capable of detecting and tracking low-flying aircraft targets in the presence of ground clutter, detecting bomber and fighter aircraft tracking targets, and active interrogation of aircraft using a cooperative beacon in either secure or standard modes.

(In Thousands of Dollars)	
Program Requirement - FY 85 ...	\$2,200,000
Program Requirement - FY 84 ...	1,349,500
Program Requirement - FY 83 ...	1,116,500
Program Requirement - FY 82 ...	109,500

ACTIVITY: Airlift Aircraft

PART I PURPOSE AND SCOPE

This activity provides for the procurement of new aircraft and support items to continue improvement of the U.S. airlift forces. The FY 1984 and FY 1985 programs include funds for the procurement of C-5B, EDSA (European Distribution System Aircraft), and C-140B Replacement aircraft.

PART II JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 and FY 1985 fund requirements for procurement of airlift aircraft, related support items, and advance procurement funding in support of the following year's program are: FY 1984 - \$1,349.5 million; FY 1985 - \$2,200.0 million. Details are as follow:

C-5B (FY 1984 - 4 aircraft, \$1,316.6 million; FY 1985 - 10 aircraft, \$2,131.0 million):

The C-5 is a service-proven, wide-bodied, intertheater airlift aircraft that can carry the full spectrum of military air cargo. It will have four TF39-GE-1C turbofan engines and updated avionics. It is the world's largest military airlifter; it can onload/offload cargo at truckbed height or ground level at each end of the cargo compartment. Intertheater airlift is required to project and sustain combat forces in an urgent manner. Deficiencies in our airlift capability are documented in numerous studies, including the recently completed Congressionally Mandated Mobility Study. Additional C-5B procurement will make a substantial near-term improvement in our capability to rapidly reinforce NATO and to meet the mobility needs of the Rapid Deployment Force.

EDSA (European Distribution System Aircraft) (FY 1984 - 16 aircraft, \$32.9 million):

The European Distribution System Aircraft will be a small off-the-shelf commercially certified, turbo-prop, cargo aircraft with the capability to operate into and out of runways of 2,000 feet or less. This aircraft will be configured to transport approximately 5000 pounds of spares or critical TACAIR aircraft spare parts and will have the capability to transport a built-up F100 aircraft engine (4200 lbs.) as the largest single contingency load. The Air Force currently does not have a distribution system that provides the necessary elements to ensure the timely wartime/peacetime European theater distribution of critical spares and other high priority logistical assets. The European Distribution System Aircraft is proposed as an integral element of the European Distribution System (EDS) which will provide an increased theater capability of approximately 300 additional TACAIR aircraft each during hostilities. As part of the EDS, the EDSA is required to distribute critical Air Force spares with minimal enroute and main base maintenance support. The EDSA will be self-sufficient and sustainable in wartime operations. The capability to operate into and out of runways of 2000 feet or less is essential to facilitate movement of critical spares from

damaged airfields. These spares are needed to launch sorties at other bases and to support grounded aircraft while runways are being repaired. Several foreign and one domestic candidate which can perform the EDSA mission without requiring any significant modification will be considered during a competitive acquisition.

C-140B Replacement (FY 1985 - 3 aircraft, \$69.0 million):

The Special Air Mission aircraft (C-SAM) will be an existing "off-the-shelf" FAA certified business jet type production aircraft. C-SAM capabilities will include a 2400 nautical mile (NM) unrefueled range with National Business Aircraft Association (NBAA) reserve (200NM alternate), and will operate from 5000 foot runways with 14 to 18 passengers plus a crew of five in an executive configuration. Useful life will be at least 20 years. The C-SAM will not have a combat role, however, during wartime the C-SAM will continue to perform support missions into areas that include theaters of war. The C-SAM will replace the eight Military Airlift Command (MAC) C-140B aircraft assigned to the 89th Military Airlift Wing (MAW) at Andrews AFB, MD and the three C-140B aircraft assigned to the 58th Military Airlift Squadron (MAS) at Ramstein AB, Germany. The C-140B is being replaced because of its increasing operating costs. These 1950s vintage airframes and engines entail high fuel consumption and difficulty in obtaining spare/replacement parts. Its limited passenger capacity and lack of coast-to-coast range have resulted in the forced, inefficient use of the 42 seat C-9 aircraft for a number of missions. The Special Air Mission provides worldwide air transportation for the President and Vice President of the United States, Cabinet members, members of Congress, and other high ranking dignitaries of the United States and foreign governments. In addition to the usual C-140B missions, the C-SAM could be dispatched on overseas missions if the range and passenger requirements do not require the use of the larger C-135s and C-137s.

(In Thousands of Dollars)

Program Requirement - FY 85 ...	\$195,600
Program Requirement - FY 84 ...	5,800
Program Requirement - FY 83 ...	0
Program Requirement - FY 82 ...	0

ACTIVITY: Trainer Aircraft

Part I Purpose and Scope

This activity provides for the procurement of new aircraft, associated flight simulation devices, and support equipment required for flight training. The FY 1984 program is for advance procurement of the T-46A trainer aircraft. The FY 1985 program is for the procurement of the T-46A and the Tanker, Transport, Bomber Trainer aircraft.

Part II Justification of Funds Requested

The FY 1984 and FY 1985 fund requirements for procurement of trainer aircraft, related support items, and advance procurement funding in support of the following year's program are: FY 1984 - \$5.8 million; FY 1985 - \$195.6 million. Details are as follows:

T-46A (Next Generation Trainer) (FY 1984 - \$5.8 million; FY 1985 - 21 aircraft, \$181.0 million):

The T-46A program is a development and acquisition effort to replace the operationally deficient T-37 aircraft to ensure that primary flight training capability exists beyond 1986. Forecast increases in USAF pilot training and the fact that the aging T-37 will begin to reach fleet insufficiency around 1986 dictate an Initial Operational Capability for the T-46A in 1987. The essential design characteristics include twin engines, side-by-side seating, and pressurization with significant improvements in performance (range, climb capability, sustained "g"), maintainability, and noise pollution control.

Tanker, Transport, Bomber (TTB) Trainer (FY 1985 - 1 aircraft, \$14.6 million):

The TTB Trainer will be an off-the-shelf twin engine aircraft which will be used to conduct the basic phase of pilot training for students selected for operational assignment to tanker, transport or bomber aircraft. The TTB will have a high level cruise capability of 0.7M, a low level speed of at least 300 KTS, seating for two students and one instructor, and a 3 hour mission profile.

(In Thousands of Dollars)

Program Requirement - FY 85 ...	\$391,100
Program Requirement - FY 84 ...	240,700
Program Requirement - FY 83 ...	173,800
Program Requirement - FY 82 ...	194,500

ACTIVITY: Other Aircraft

PART I PURPOSE AND SCOPE

This activity provides for the procurement of HH-60 and TR-1 aircraft in FY 1984 and FY 1985, and for C-12 aircraft in FY 1985.

PART II JUSTIFICATION OF FUNDS REQUESTED

The FY 1984 and FY 1985 fund requirements for procurement of other aircraft, related support, and advance procurement funding in support of the following year's program are: FY 1984 - \$240.7 million; FY 1985 - \$391.1 million. Details are as follow:

HH-60D (FY 1984 - 0 aircraft, \$25.9 million; FY 1985 - 7 aircraft, \$208.5 million):

The HH-60D will be a derivative of the Army UH-60A, Black Hawk and the Navy SH-60B, Seahawk. Changes to the UH-60A will include improved avionics, extended range capability, more powerful engines, and necessary mission equipment. The HH-60D avionics suite will significantly improve responsiveness and threat avoidance by providing a capability for precision low level navigation at night or in adverse weather. The HH-60D will be used for combat rescue and special operations missions. It will be used to overcome shortfalls in the number of required combat helicopters, to upgrade capabilities to cope with increasing threats, and to replace obsolescent, hard-to-maintain equipment.

C-12 (FY 1985 - 2 aircraft, \$3.2 million):

The C-12 is a FAA-certified, off-the-shelf, Beech, medium-weight, pressurized cabin, utility aircraft. It is a twin engine turboprop capable of carrying a combination personnel/cargo load of 2,000 pounds exclusive of fuel. This aircraft has a range of 1,000 nautical miles while operating at a cruising altitude of 20,000 feet and at a speed of 210 knots. These two aircraft will be used for sea surveillance telemetry relay and over the horizon drone control at the Eglin/Tyndall Test Range. These test aircraft are needed so the Air Force can safely test AMRAAM missiles launched at multiple target drones out of sight of land. The AMRAAM missile, with its active seeker, would be a safety hazard if fired in sight of land.

TR-1/U-2R (FY 1984 - 5 aircraft, \$214.8 million; FY 1985 - 5 aircraft, \$179.4 million):

The TR-1/U-2 is a single engine, single crew, fixed wing aircraft specifically designed for high altitude, standoff surveillance missions. Except for two dual-seat training aircraft, all TR-1 aircraft can be equipped with either a reconnaissance sensor

package or the Precision Location Strike System (PLSS) equipment. The TR-1 is the tactical variant of the highly reliable, versatile U-2R aircraft currently in the strategic reconnaissance inventory. The tactical reconnaissance TR-1, equipped with the latest sensors, will provide a battlefield surveillance system available to the theater/tactical commander into the 1990s. The U-2R is a national reconnaissance asset used in direct support of national command authorities and/or in direct support of theater commanders. Pratt & Whitney modified J75 engine, available from within the Air Force inventory, provides high maneuverability, and sufficient power for accessory/sensor operations.

(In Thousands of Dollars)

Program Requirement - FY 84 ...	\$4,121,100
Program Requirement - FY 83 ...	3,208,800
Program Requirement - FY 82 ...	2,473,600
Program Requirement - FY 81 ...	2,168,800

ACTIVITY: Modification of In-Service Aircraft

PART I PURPOSE AND SCOPE

This budget activity provides for modification and modernization of in-service aircraft, training devices and support equipment necessary for safety, extension of service life, and to incorporate operational improvements after an aircraft has entered service. The program is designed to maintain the Air Force aircraft inventory at the most modern configuration level at the minimum cost.

PART II JUSTIFICATION OF FUNDS REQUESTED

Modifications are necessary to enable the strategic offense, defense, tactical, and support forces to maintain superiority over hostile forces, to extend the active service life of aircraft, and to keep abreast of changing mission requirements. To ensure maximum safety for the aircraft and crews and to enhance capabilities of aircraft in a combat environment, priority modifications are necessary. Modifications are closely examined and priorities established so that only the most essential are accomplished with the funds available.

The FY 1984 program, to a large extent, consists of follow-on requirements for previously initiated modifications. In FY 1984 we are requesting advance procurement for economic order quantities of hardware to reengine the KC-135 aircraft with new fuel efficient, high by-pass turbofan engines. This multiyear contract on the airframe kits will result in significant savings over the five year procurement program. Particularly significant is the requirement to provide long range external cruise missile carriage for the B-52H force and a portion of the B-52G force which continues procurement in FY 1984. Internal carriage for the B-52H force is initiated in FY 1984, and the companion modification to provide an offensive avionics system upgrade for both the B-52G and H completes procurement. Modifications to the B-52G and H to improve their survivability in a hostile environment include an upgrade to the electronic defensive capabilities and electromagnetic pulse protection. Other significant efforts impacting the program total include:

- (1) Updating the penetration and electronic defense capabilities of various weapon systems to improve survivability in a hostile environment.

- (2) Enhancements in the E-3A Airborne Warning and Control Aircraft Capability.
- (3) Improvement in Peacetime Material Readiness through replacement of unreliable hardware with new state of the art equipment, thus increasing maintainability/reliability and decreasing support costs.
- (4) Service life extension modifications to allow the aircraft to meet their programmed service life requirements.
- (5) Modifications to the Civil Reserve Air Fleet widebody aircraft to increase the strategic mobility capabilities.

Aircraft modification kits are procured on a phased basis, lead time away from installation, which is scheduled concurrently with normal depot maintenance programs to the maximum extent possible. Complex modifications are installed at Air Force depots or contractor facilities, concurrently with programmed depot maintenance. Where the installation tasks are less complex or require a relatively small number of man-hours, they are accomplished in the field by assigned personnel or specialized teams dispatched from the depot or provided by contractors.

B-52 (FY 83 - \$607.0 million; FY 84 - \$732.1 million). The FY 1984 program includes: follow-on modifications for Offensive Avionics System modernization, long range Air Launched Cruise Missile Carriage in the amount of \$238.8 million, integration of Harpoon missile carriage for some of the B-52G force in the amount of \$15.4 million and \$56.5 million for several reliability and supportability improvements including the environmental control system, fuel quantity indicating system, defensive fire control system, radar antenna, and various other improvements. Funding of \$296.3 million is included to initiate new modifications for the B-52 to provide internal carriage for the long range Air Launched Cruise Missile (\$145.0 million), ALQ-172 electronic countermeasure equipment for the B-52H (\$54.3 million), Pave Mint electronic countermeasures equipment for the B-52G (\$6.0 million), Electromagnetic Pulse Hardening (\$12.0 million), maintainability/supportability improvements for the strategic radar (\$65.5 million), and the Forward Looking Infrared Signal Processor (\$13.5 million).

The FY 1985 program continues modifications previously started, and will initiate a reliability/supportability improvement to the automatic flight control system and upgrade the Air Force Satellite Communications Terminal with a dual modem.

A-7 (FY 84 - \$50.8 million; FY 85 - \$38.3 million). FY 1984 completes the procurement for the Digital Scan Converter in the amount of \$10.4 million, continues procurement of TF41 Engine Hot Section improvement in the amount of \$35.5 million and initiates procurement of a safety modification for the Nose Wheel Steering in the amount of \$4.6 million. A variety of reliability and maintainability improvements for \$.5 million are also included.

The FY 1985 program continues procurement of modifications previously started.

A-10 (FY 84 - \$129.1 million; FY 85 - \$118.0 million). In FY 1984, \$54.5 million is to continue procurement of an Inertial Navigation System, \$23.6 million is for a Turbine Engine Monitoring System, \$10.9 million is for a Panel Redesign to correct a safety problem, and \$40.1 million is for various reliability/supportability improvements to the aircraft and engines.

The FY 1985 program continues these modifications previously started.

F/RF-4 (FY 84 - \$225.3 million; FY 85 - \$348.3 million). The FY 1984 program continues procurement of a Radar Warning Receiver update in the amount of \$64.0 million, a Low Smoke Modification to the J79 engine in the amount of \$30.9 million, \$5.8 million for HARM integration on the F-4G Wild Weasel, \$9.3 million for Secure Voice, \$18.6 million for structural improvements to the Outer Wing and Centerline Splice, \$15.4 million for an improved Inertial Navigation System on the F-4G, and \$6.1 million for various on-going reliability/supportability improvements. New initiatives requested include \$54.5 million to provide Expanded Data Capability and to convert additional aircraft to the Wild Weasel Configuration, \$15.8 million for a Radar Reliability Upgrade in the aging RF-4, \$2.3 million for an Ejection Seat Inertial Reel improvement, and \$2.6 million for an IFF improvement.

FY 1985 continues modifications started in prior years and initiates safety improvements to the Engine Bay area, Other Structural Fatigue corrections, provides a Gas fired Catapult System for the ejection seat, and initiates a reliability/supportability improvement to the aging avionics in the F-4E and D series.

F-5 (FY 84 - \$2.6 million; FY 85 - \$.1 million). The FY 1984 program provides safety improvements for the Aluminum Flight Control Components, the Leading Edge Flap Nodes, and reliability/maintainability improvements to various components.

The FY 1985 program continues the safety improvement to the Aluminum Flight Control Components.

F-15 (FY 84 - \$63.4 million; FY 85 - \$133.0 million). In 1984, \$14.2 million initiates an improvement for All Environment Identification, a Multi Stage Improvement Program to various series of the F-15 to provide continued combat effectiveness in the amount of \$8.9 million, \$4.9 million for Computer and Display Replacement for the simulator will retrofit those simulators currently delivered to the new production line configuration to assure continued effective ground training for aircrews. Funding of \$4.4 million is for reliability/maintainability improvements to the Radar Receiver and the Vertical Situation Display and \$5.2 million is for improvements to the TEWS Integrated Test Equipment. Follow-on modifications to the Communications/ Navigation Equipment, Foam Replacement, and various other reliability/maintainability improvements for the aircraft and engine are also included in the amount of \$25.8 million.

In FY 1985, the Multi Stage Improvement Program to various F-15 series is continued in the amount of \$67.3 million, All Environment Identification capability is continued in the amount of \$9.5 million, and reliability/maintainability improvements to the aircraft, simulators, and engines are in the amount of \$16.9 million. Funding of \$39.3 million is included for initiation of the Anti-Satellite Defense and Joint Tactical Identification Distribution System.

F-16 (FY 84 - \$49.0 million; FY 85 - \$122.0 million). In FY 1984, \$16.0 million is included to initiate the Advanced Medium Range Air to Air Missile (AMRAAM) carriage capability for the In FY 1984, \$16.0 million is included to initiate the Advanced Medium Range Air to Air Missile (AMRAAM) carriage capability for the aircraft assigned to the air defense role, \$13.3 million for an improvement to the aircraft equipped with the ALR-69 Radar Warning Receiver, \$18.0 million for replacement of the vane type Main Engine Fuel Pump with a gear type pump to provide the reliability necessary for a single engine aircraft, and \$1.7 million to improve the Compressor Inlet Variable Vane on the F100-PW-200 Engine.

FY 1985 continues those modifications started in previous years, initiates various improvements to correct reliability, maintainability, and performance deficiencies for the aircraft and engines, including the Nuclear Biological Chemical Protection Equipment for aircraft, Oil Tank Cracking/Pump Leakage, and Inlet Anti-Ice Capabilities for the engine.

F-111 (FY 84 - \$91.9 million; FY 85 - \$224.7 million). FY 1984 \$13.7 million completes the procurement for an improved Integrated Display Set for the D series, \$38.0 million for the Pacer 30 Engine reliability improvement for the A, E, and D series, \$6.4 million completes procurement of the Redesignated Radar Transmitter for the D series, \$4.0 million completes the full funded multiyear contract to replace the Weapons/Navigation Computer on the D, F, and FB series, \$4.7 million continues replacement of the Wheel Well Power Lines to improve safety, and \$1.6 million provides various reliability, maintainability, and supportability improvements. Funding of \$1.1 million is included to initiate a safety improvement to eliminate the possibility of Parachute Entanglement of the Crew Escape Module and \$12.4 million is to initiate a reliability upgrade of the avionics in all series, with initial emphasis on the FB to increase the mean time between failure commensurate with its SIOP mission length.

FY 1985 continues these modifications started in previous years, including \$33.4 million for the Pacer 30 engine reliability, \$181.3 million for the Avionics Modernization requirement, and \$10.0 million for the various other reliability/supportability and safety improvements.

TR-1 (FY 84 - \$2.0 million; FY 85 - \$13.2 million). In FY 1984, \$2.0 million will provide for Mission Equipment Threat Update.

In FY 1985, Mission Equipment Threat Update is continued and a Digital Recorder and an update of the Electronic Warfare System are initiated.

A/T-37 (FY 84 \$2.0 million). Funding of \$2.0 million completes procurement of an improved Attitude Indicator to increase safety of the aircraft.

C-5 (FY 84 - \$259.3 million; FY 85 - \$6.2 million). Funding of \$246.6 million in FY 1984 will complete procurement of the modification to replace the C-5A wing with a 30,000 flying hour wing, \$4.2 million will complete procurement of the VINSON and PARKHILL Tactical Secure Voice capability, and \$5.8 million is for various other reliability, supportability, and safety improvements. Funding of \$2.7 million is required to initiate a modification to provide 50 Khz VOR/ILS equipment which is required in many European airfields through which the C-5A routinely operates.

FY 1985 continues modifications started in previous years.

C-141 (FY 84 - \$20.6 million; FY 85 - \$3.7 million). FY 1984 funding completes procurement of the VINSON and PARKHILL Tactical Secure Voice capability in the amount of \$7.6 million, and the Enhanced Station Keeping Equipment, which allows the C-141 to meet brigade sized airdrop requirements, in the amount of \$6.2 million. Funding of \$4.7 million initiates a modification to provide 50 Khz VOR/ILS equipment which is required in many European airfields through which the C-141B routinely operates. Several other Fatigue Life Extension and safety requirements are included in the amount of \$2.1 million.

FY 1985 continues the 50 Khz VOR/ILS modification initiated in FY 84.

T-38 (FY 84 - \$2.2 million; FY 85 - \$16.0 million). FY 1984 funding provides for various reliability/supportability and safety improvements including Aluminum Flight Controls for \$.9 million, Power Unit reliability for \$.1 million, improved engine Diffuser Casing for \$.8 million, improved engine Fuel Control P3 Line for \$.3 million, and various small requirements for \$.1 million.

FY 1985 continues the Aluminum Flight Control modification and initiates a supportability upgrade for the simulator Terrain Model Board visual capability to assure effective ground training for aircrews.

C-130 (FY 84 - \$171.5 million; FY 85 - \$244.6 million). The FY 1984 program includes: \$61.5 million for an outer wing replacement to extend the service life; \$9.3 million for a safety modification to install Fuel Cell Foam to reduce the possibility of fires; \$10.0 million to provide a Flight Data Recorder/Cockpit Voice Recorder capability and improve safety; \$16.5 million for VINSON and PARKHILL Tactical Secure Voice Capability; \$20.8 million for an Enhanced Station Keeping Capability; \$5.6 million for ALE-40 Flare dispenser System for protection in a hostile environment; \$1.5 million to initiate a conversion of HC-130H aircraft to a Tanker Configuration for refueling of combat rescue and Special Operations Forces' heavy lift helicopters for wartime and contingency tasking; \$4.7 million to initiate a Self Contained Navigation System (SCNS) to allow the C-130 to operate without external navigation aids in battle zones where navigation aids may be shut down or jammed; \$29.7 million to initiate improved capabilities for the Special Operations Forces' gunship and special mission aircraft; \$5.5 million to initiate procurement of 50 Khz VOR/ILS required for operating through European airfields; and \$6.5 million for various reliability/supportability and safety improvements for the aging C-130s.

FY 1985 continues modifications started in previous fiscal years, including \$117.9 million for the outer wing replacement, \$34.5 million for Special Operations Forces Improved Capabilities, \$12.3 million for VINSON and PARKHILL Tactical Secure Voice, \$27.1 million for Enhanced Station Keeping Equipment, \$8.0 million for ALE-40 Flare Dispensing Equipment, \$4.5 million for HC-130H Tanker Conversion, \$8.7 million for Flight Data Recorder, \$6.9 million for 50 Khz VOR/ILS, \$14.4 million for SCNS, \$2.9 million for Fuel Cell Foam, and \$7.4 million for various other reliability/supportability improvements for all series of the aging C-130 force.

C-135 (FY 84 - \$995.5 million; FY 85 - \$1,558.2 million). The FY 1984 program includes a request to initiate a multiyear procurement (MYP) for the CFM56 KC-135 Reengining modification. The total funding programmed in FY 1984 (\$875.8 million) includes \$254.3 for Advance Procurement for economic order quantities of the airframe provisions kit and long lead items for the engine to allow the engines to deliver concurrently with the improved delivery of the MYP aircraft kits. Funding of \$14.0 million is being applied to long lead components in FY 1983. Engine procurement is not included in the MYP and engine economic order quantities are not proposed. This MYP will save \$354.4 million over the five year MYP of 305 kits. The development test program completes in FY 1983 and the program meets all the criteria for a multiyear procurement, i.e. stability of configuration, high cost confidence, high degree of confidence in contractor capability, and stability of funding requirements. The FY 1984 program also includes a Secure Voice Conferencing capability for the Worldwide Airborne Command Post series of the C-135 in the amount of \$5.9 million, \$6.5 million to improve EC-135 AFSATCOM performance, \$3.2 million to initiate a modification to incorporate the Air Force Standard VHF AM/FM Radio capability into the KC-135 series to meet the 25 Khz frequency band required for civilian/military air traffic control, \$47.5 million to continue the Life Extension Wing Reskin modification, and \$10.9 million for various other reliability/maintainability improvements.

The FY 1985 program continues the modifications started in previous fiscal years and the initiation of several improved Worldwide Airborne Command Post connectivity modifications.

E-3A (FY 84 - \$167.6 million; FY 85 - \$101.7 million). The FY 1984 program includes: \$157.8 million to continue an Enhancement modification that provides a Joint Tactical Information Distribution System (JTIDS) Terminal, additional Situation Display Consoles, added communications and expanded computer memory for a significantly improved air surveillance capability, \$4.5 million to Improve the Mission Simulator for more effective ground training of crew members, \$3.0 million to complete the Electronic Security System, and \$6.3 million for various reliability/maintainability improvements.

FY 1985 continues modifications started in prior fiscal years and initiates Communication Connectivity Improvements and further improvements to the Radar Maintenance Trainers.

E-4B (FY 84 - \$11.7 million; FY 85 - \$13.2 million). The FY 1984 program provides \$5.2 million for Automatic Data Processing Capability and \$2.9 million for an Improved Crypto Capability to support National Command Authority connectivity, \$1.6 million for a Secure Voice Conferencing capability, and \$2.0 million for Service Bulletins and other reliability and communication capability improvements.

The FY 1985 program continues the modifications initiated in prior fiscal years and initiates several improved communications modifications to support National Command Authority connectivity.

H-53 (FY 84 - \$7.4 million). \$5.2 million is required for a reliability/supportability improvement to the Navigation System and \$2.2 million for a Crashworthy Auxiliary Fuel Tank to improve safety.

Other Aircraft (FY 84 - \$84.4 million; FY 85 - \$120.5 million). In FY 1984, funds are required for follow-on costs of previously initiated modifications as follows: \$5.9 million for VINSON Tactical Secure Voice for the AN/ARC-164 UHF Radio, \$7.0 million for Improved HAVE QUICK Anti-Jam Capability, \$15.5 million for the Standard Combined Altitude Radar Altimeter (CARA), \$35.4 million to replace HF Radios with highly reliable state-of-the-art radios, \$10.8 million to improve reliability of the TTU205 Field Test Set Pressure and Temperature used for testing all first line aircraft prior to take-off and \$10.2 million for various modifications on a variety of aircraft.

The FY 1985 program continues the modifications initiated in FY 1984 and prior fiscal years and initiates procurement of a NAVSTAR Global Positioning System Terminal for a variety of aircraft and a Standard Central Air Data Computer to replace the Central Air Data Computers on a variety of aircraft with a digital state-of-the-art processor with significant reliability improvement.

Classified Projects (FY 84 - \$121.1 million; FY 85 - \$141.4 million). These funds are required for the modification of a variety of aircraft and airborne systems used in classified missions which, because of their sensitivity, require the application of special management and security safeguards.

Civil Reserve Air Fleet (CRAF) (FY 84 - \$144.3 million; FY 85 - \$179.4 million). FY 1984 and FY 1985 funds will provide for cargo convertible features to be incorporated into wide-bodied passenger carrying aircraft owned by United States commercial air carriers to enhance the strategic airlift capability.

The table below summarizes fund requirements for Fiscal Years 1983, 1984 and 1985 by aircraft/category:

(In Millions of Dollars)

<u>Aircraft/Category</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
B-52	527.9	607.0	732.1
FB-111			6.4
A-7	86.4	50.8	38.3
A-10	77.1	129.1	118.0
F/RF-4	119.4	225.3	348.3
F-5	2.3	2.6	.1
F-15	29.7	63.4	113.0
F-16	45.1	49.0	122.0
F-111	105.4	91.9	224.7
EF-111	197.9		
TR-1	2.0	2.0	13.3
A/T-37	4.3	2.0	
C-5	228.0	259.2	6.2
C-141	33.5	20.6	3.7
T-38	8.8	2.2	16.0
T-39	4.1		
C-130	139.4	171.6	244.6
C-135	532.2	741.2	1,315.8
C-135 Advance Procurement	14.0	254.3	242.4
E-3	138.3	167.6	101.7
E-4	6.9	11.7	13.2
H-53		7.4	
Other Aircraft	69.6	84.4	120.5
Classified Projects	101.3	121.1	141.4
CRAF	-	144.3	179.4
TOTAL	\$2,473.6	\$3,208.8	\$4,121.1

STATUS OF AIRCRAFT MODIFICATION PROGRAMS

FY 1983 Modification of Aircraft
Programs as of 30 Nov 82
(\$ in millions)

<u>Program</u>	<u>Authorized 1/</u>	<u>Reprogrammings</u>	<u>Program Value</u>	<u>Total Obligations</u>	<u>Total Expenditures</u>
Budget Activity No. 5 P-1 No. 34-61	\$2,578.9	0	\$2,578.9	\$459.2	\$0.1

1/ Initial FY 83 CRA still in effect as of 30 Nov 82.

STATUS OF AIRCRAFT MODIFICATION PROGRAMS

FY 1982 Modification of Aircraft
Programs as of 30 Nov 82
(\$ in million)

<u>Program</u>	<u>Appropriated 1/</u>	<u>Reprogrammings 2/</u>	<u>Total Program Value</u>	<u>Total Obligations</u>	<u>Total Expenditures</u>
Budget Activity No. 5					
P-1 No. 34-61	\$2,191.7	-\$22.9	\$2,168.8	\$1666.4	\$209.5

1/ Includes -\$22.5 million for redistribution from Spares and Repair Parts funds to implement Congressional direction in support of the KC-135 re-engineing program.

2/ Includes -\$28.4 million for Congressionally approved or pending reprogrammings and +\$5.5 million for below threshold reprogrammings.

STATUS OF AIRCRAFT MODIFICATION PROGRAMS

FY 1981 Modification of Aircraft
Programs as of 30 Nov 82
(\$ in millions)

<u>Program</u>	<u>Appropriated</u>	<u>Reprogramming 1/</u>	<u>Total Program Value</u>	<u>Total Obligations</u>	<u>Total Expenditures</u>
Budget Activity No. 5					
P-1 No. 30-56	\$1,915.9	\$-12.0	\$1,903.9	\$1,718.4	\$1,044.2

1/ Includes -\$22.0 million of Congressionally approved reprogrammings and +\$10.0 million of below threshold reprogrammings.

(In Thousands of Dollars)

Program Requirement - FY 85 ...	\$6,514,500
Program Requirement - FY 84 ...	5,128,800
Program Requirement - FY 83 ...	3,528,000
Program Requirement - FY 82 ...	3,899,600

ACTIVITY: Aircraft Spares and Repair Parts

PART I PURPOSE AND SCOPE

This activity provides funds for centrally procured and managed investment type spare components and repair parts for the aircraft being procured, the aircraft in the inventory, the modification and modernization program, related aircraft support equipment, spares for Other Production Charges programs, such as ECM pods, and spares for the increased sortie surge program. Investment type items are defined as reparable assemblies, spares and repair parts which are centrally managed.

PART II JUSTIFICATION OF FUNDS REQUESTED

This activity supports the procurement of investment initial spares, for which the funds must be programmed in FY 1984 and FY 1985 to provide support for new production aircraft, common ground support equipment, the aircraft modification program, Other Production Charges programs and the increased sortie surge program. Replenishment, or follow-on, spares and repair parts funds must also be committed and obligated for those items required for the 1986 and 1987 flying hour programs (procurement lead time away - that is, funds are programmed two years ahead of the flying hour program due to production leadtime).

The following table compares fiscal years in the various spare and repair parts categories:

(In Millions of Dollars)

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
Initial Weapon System Spares	\$503.4	\$697.3	\$1,052.8	\$1,543.7
Initial Modification Spares	137.9	204.1	214.1	246.4
Initial Common GSE Spares	28.4	14.3	20.9	41.0
Initial Other Production Spares	25.0	26.2	29.3	15.8
Initial Sortie Surge	-	-	35.9	-
Total Initial Spares	694.7	941.9	1,353.0	1,846.9
Replenishment Spares	3,204.9	2,586.1	3,775.8	4,667.6
Total Spares and Repair Parts	\$3,899.6	\$3,528.0	\$5,128.8	\$6,514.5

Included in this combined initial/replenishment spares program are spare engines and those recoverable/replacement type items which are normally repaired and returned to stock. The basic determinant of the spares level required for an item is the time it will operate before it must be removed and repaired. This capability is Mean Time Between Demand (MTBD) and is expressed in operating hours. The MTBD of an item is applied to the operating program of the weapon system to determine how many reparable will be generated during the period. From this, required pipeline quantities, base stock, depot stocks, and attrition replacements are determined. Maximum consideration is given to improved management actions, faster repair, air transportation, and selective management of high cost items. The buy requirements are intensively reviewed semiannually by an Air Force management review team.

The initial spares request is \$1,353.0 million in FY 1984 and contains spare engines and those new recoverable/replacement type items required for initial support of aircraft being procured and aircraft modification programs. The FY 1984 program includes spares for the B-1B, F-15, F-16, KC-10, C-5B, MC-130H, European Distribution System Aircraft, and TR-1 aircraft. The FY 1984 replenishment spares program request is \$3,775.8 million, supports peacetime operating stock requirements in the amount of \$3,021.0 million and includes War Reserve Materiel (WRM) spares for new aircraft being added to the inventory in the amount of \$754.8 million. A detailed discussion of War Reserve computation assumptions and methodology follows:

WAR RESERVE - SECONDARY ITEMS

(\$ Millions)

<u>Aircraft Replenishment Spares</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
Requirement	5512.7	6028.7	7097.3	8486.9
Applicable Assets Applied	2994.0	3909.0	4209.0	4964.0
Funding Requested	914.7	309.9	754.8	1,520.8

Planning Assumptions: The planning assumptions used for computing aircraft replenishment spares War Reserve Materiel (WRM) requirements are contained in the DOD Defense Guidance (DG) which provides guidance regarding the length of the wartime scenarios, the gross force size (number of aircraft wings), the number of days of WRM to be funded, and other general guidance relative to the logistics area for which WRM requirements are computed.

Computation Methodology: WRM requirements are additive to peacetime needs and are computed by a mechanized system for those items that are required for wartime usage, safety, and deemed mission essential. The WRM requirements consist of two segments as follow:

1. Prepositioned segment consists of:

a. War Readiness Spares Kits (WRSK) are air transportable packages of spares that will support specific units tasked to be deployed during the first 30 days of a war or contingency until resupply can be established. The basic configuration of a WRSK is determined by the maintenance concept to be used, i.e., Remove and Replace (RR) an item as opposed to Remove, Repair, and Replace (RRR) the item. The WRSK are configured to include both the RR and RRR maintenance concepts. Since base level repair shops may not be available at the deployed site, support for the first few days is based on RR and the balance of the support is based on RRR. The using major command and the Air Force Logistics Command determine those essential items to be included in the WRSK, which is only a small portion of the total number of items used on a day-to-day basis in peacetime. The quantity of items to be included in the WRSK are computed using factors such as item failure rates, number of items per aircraft, the flying hour program to be supported, base repair time, item pipeline time, and available assets.

b. Base Level Self-Sufficiency Spares (BLSS) are spares designed to augment existing peacetime assets to support the initial increased wartime activity for specific units that will fight the war in place. BLSS requirements consider the same factors as those used in the WRSK computation. These requirements reflect the number of items required to support the base repair cycle, fill the pipeline to the depot for those items the base cannot repair, and provide a safety level to cover random demands. Those units which are authorized a WRSK are not authorized a BLSS.

2. Other War Reserve Materiel (OWRM) are spares required to sustain the force at wartime levels after the prepositioned assets are used and until the production base can be expanded to satisfy wartime consumption. OWRM requirements are also jointly reviewed by the using major command and AFLC to ensure only combat essential items are procured. The resulting OWRM requirements are then reduced by assets available from production, peacetime levels and WRSK and BLSS levels. OWRM assets are stored in the AFLC depots.

Changes in requirements and funding levels are caused by many factors such as new aircraft activations, changes in item failure rates, increased wartime flying hour programs, modification of existing aircraft to increase wartime capability and increased cost of items (inflation). The increase in the spares WRM requirements are driven primarily by new aircraft activations, aircraft modifications, increased wartime flying hour programs (sortie surge for tactical fighters), and inflation. Due to limited resources, Air Force funding priority supports peacetime needs first and then WRM requirements. Priority support of peacetime needs is essential to ensure the inventory is trained and the aircraft are maintained in an operational condition in order to meet wartime taskings. The FY 1984 war reserve funding level of \$754.8 million funds most Air Force prepositioned WRM requirements (WRSK/BLSS) and continues to fund strategic aircraft OWRM requirements. This funding maintains operational sustainability and the Air Force's commitment to improve wartime readiness.

Aircraft initial spares requirements by weapon system and fiscal year are listed below:

AIRCRAFT INITIAL SPARES
(In Millions of Dollars)

	<u>FY 1984</u>		<u>FY 1985</u>	
	<u>No. of Acft</u>		<u>No. of Acft</u>	
	<u>Procured</u>	<u>\$</u>	<u>Procured</u>	<u>\$</u>
B-1B	(10)	552.8	(34)	609.0
F-15	(48)	167.0	(72)	262.6
F-16	(120)	160.7	(120)	286.1
KC-10A	(8)	54.0	(8)	56.0
MC-130H	(2)	4.9	(2)	4.6
E-3A	(-)	-	(3)	4.1
C-5B	(4)	87.1	(10)	249.3
European Distribution System Aircraft	(16)	3.1	(-)	-
C-140B	(-)	-	(3)	14.9
H/HH-60D	(-)	-	(7)	19.6
T-46A (NGT)	(-)	-	(21)	7.9
Tanker, Transport, Bomber Trainer	(-)	-	(1)	1.3
TR-1	(5)	23.2	(5)	28.3
Modification Spares		214.1		246.4
Common GSE Spares		20.9		41.0
Other Production Charges		29.3		15.8
Spares				
Sortie Surge Spares		35.9		-
TOTAL		1,353.0		1,846.9

AIR FORCE
AIRCRAFT REPLENISHMENT SPARES
(\$ IN MILLIONS)
FY 1984

WEAPON SYSTEM	PEACETIME*		WRSK-BLSS		OWRM	
	TOTAL RQMT**	FUNDING	TOTAL RQMT**	FUNDING	TOTAL RQMT**	FUNDING
A-7	51.1	38.8	33.3	0.0	36.8	0.0
A-10	100.0	88.5	10.2	0.0	44.3	0.0
A-37	1.0	0.5	0.1	0.0	0.0	0.0
B-1B	7.8	7.7	0.0	0.0	0.0	0.0
B-52	172.1	145.11	279.5	85.4	215.9	0.0
FB-111	32.5	28.7	0.0	0.0	0.0	0.0
EF-111	37.3	29.8	63.4	51.3	0.0	0.0
F-111	456.1	359.0	144.0	33.6	272.8	0.0
C-5	263.6	263.6	39.9	39.9	45.6	6.8
C-130	110.9	97.9	9.3	8.3	90.6	0.0
C-135	108.8	88.1	4.7	3.2	82.5	0.0
C-137	1.3	1.1	0.0	0.0	0.0	0.0
C-140	2.1	1.8	0.0	0.0	0.0	0.0
C-141	54.9	45.3	24.2	21.4	42.9	8.4
E-3	70.7	64.2	17.1	17.1	13.3	0.0
E-4	1.5	1.2	0.0	0.0	0.0	0.0
F-4	287.2	198.4	13.0	0.0	52.4	0.0
F-5	34.8	19.7	0.0	0.0	1.0	0.0
F-15	289.7	227.9	92.8	91.6	135.6	0.0
F-16	96.0	90.3	273.1	273.1	27.3	0.0
F-105	0.9	0.8	0.0	0.0	0.0	0.0
F-106	10.3	1.2	0.2	0.0	0.0	0.0
H-1	2.7	2.7	0.1	0.0	6.8	0.0
H-3	2.3	2.3	1.3	0.0	1.8	0.0
H-53	3.9	3.8	0.9	0.0	11.1	0.0
T-33	7.6	5.7	0.0	0.0	0.0	0.0
T-37	18.9	6.2	0.0	0.0	0.0	0.0
T-38	40.0	31.2	0.0	0.0	0.9	0.0
T-39	1.8	1.4	0.0	0.0	0.0	0.0
T-43	3.0	2.1	0.0	0.0	0.0	0.0
OV-10	1.6	0.6	0.0	0.0	0.0	0.0
F100 Engine	727.4	628.0	30.7	29.7	96.7	0.0
Common Parts	825.3	686.7	93.7	85.0	568.6	0.0
Other Acft	67.7	21.9	9.7	0.0	0.0	0.0
TOTAL	3,892.8	3,192.3	1,141.3	739.6	1,747.0	15.2

Total Requirement** = 6,781.1
Total Funding = 3,947.1
Total Unfunded = 2,834.0

*Includes \$171.34 of replenishment authority

AIR FORCE
AIRCRAFT REPLENISHMENT SPARES
(\$ IN MILLIONS)
FY 1985

WEAPON SYSTEM	PEACETIME*		WRSK-BLSS		OWRM	
	TOTAL RQMT**	FUNDING	TOTAL RQMT**	FUNDING	TOTAL RQMT**	FUNDING
A-7	38.5	30.4	41.2	0.0	39.1	4.4
A-10	98.7	78.9	31.0	0.0	47.0	10.1
A-37	0.5	0.3	0.1	0.0	0.0	0.0
B-1B	72.7	72.6	148.8	148.8	0.0	0.0
B-52	192.3	171.9	284.5	212.2	229.0	0.0
FB-111	24.1	20.0	0.0	0.0	0.0	0.0
EF-111	38.0	32.3	12.9	0.0	27.8	17.9
F-111	490.2	392.2	135.2	34.7	402.1	64.7
C-5	368.6	368.6	170.7	170.7	117.4	67.8
C-130	115.0	101.0	7.1	6.1	106.3	10.2
C-135	112.7	91.3	14.6	2.4	87.9	69.3
C-137	0.1	0.1	0.0	0.0	0.0	0.0
C-140	0.4	0.0	0.0	0.0	0.0	0.0
C-141	61.0	49.9	6.6	2.6	54.3	17.7
E-3	76.2	68.2	1.8	1.8	14.1	8.0
E-4	0.3	0.3	0.0	0.0	0.0	0.0
F-4	206.8	159.4	42.9	0.0	85.6	55.6
F-5	49.9	37.9	0.0	0.0	1.1	1.1
F-15	309.8	263.0	204.2	184.2	143.9	52.3
F-16	109.3	92.9	234.2	184.2	48.9	28.9
F-105	0.1	0.1	0.0	0.0	0.0	0.0
F-106	9.7	0.4	0.2	0.0	0.0	0.0
H-1	3.1	3.1	0.1	0.0	7.2	0.0
H-3	4.3	4.3	1.4	0.0	1.9	0.0
H-53	6.1	6.1	1.0	0.0	11.7	0.0
T-33	2.0	1.4	0.0	0.0	0.0	0.0
T-37	13.4	8.4	0.0	0.0	0.0	0.0
T-38	29.3	23.1	0.0	0.0	1.0	0.0
T-39	0.5	0.4	0.0	0.0	0.0	0.0
T-43	1.0	0.7	0.0	0.0	0.0	0.0
OV-10	1.1	0.8	0.0	0.0	0.0	0.0
F100 Engine	680.6	536.1	1.4	0.0	104.4	35.5
Common Parts	808.9	520.6	39.4	15.7	555.2	101.9
Other Acft	51.5	10.1	10.3	0.1	47.2	12.0
TOTAL	3,976.8	3,146.8	1,389.6	963.4	2,133.3	557.4

Total Requirement** = 7,499.7
Total Funding = 4,667.6
Total Unfunded = 2,832.1

NOTE: Totals may not add due to rounding

** Total requirement figures are based on the most current Air Force projections and are subject to change as more up-to-date price and usage data becomes available. These projections were not available at the time OSD/OMB reviewed the budget.

(In Thousands of Dollars.)

Program Requirement - FY 85 ...	3,171,676
Program Requirement - FY 84 ...	2,300,090
Program Requirement - FY 83 ...	1,746,100
Program Requirement - FY 82 ...	1,972,198

ACTIVITY: Aircraft Support Equipment and Facilities

PART I PURPOSE AND SCOPE

This activity provides for support equipment required to service and test aircraft and their components; for industrial machinery, equipment and facilities required in the manufacture of items funded by this appropriation; for those war consumable items required to be on hand for immediate use in the event of war; and for other charges such as electronic counter-measure equipment. The activity also provides for procurement of flight simulation equipment for aircraft that are no longer in production, and for programs not associated with one specific weapon system.

PART II JUSTIFICATION OF FUNDS REQUESTED

The estimate for this activity is comprised of the following items: (In Millions of Dollars)

<u>LINE ITEM</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
Common Ground Equipment	\$394.7	\$302.3	\$419.4	\$819.8
Industrial Responsiveness	103.2	145.8	169.5	116.9
War Consumables	83.8	123.9	182.5	221.2
Other Production Charges	1,046.2	988.0	1,416.6	2,013.7
NATO AWACS	344.3	186.1	112.1	0
ACTIVITY TOTALS	\$1,972.2	\$1,746.1	\$2,300.1	\$3,171.7

Common Ground Equipment

This program is for the procurement of organizational, base, and depot level support equipment, both common and peculiar, for out-of-production aircraft, and for common support equipment for new aircraft entering the inventory. The equipment is used on the flight line, in maintenance shops, and in the depots. The program also provides for the procurement of flight simulators and other training devices for aircraft that are out of production. Support equipment includes depot plant equipment, support equipment for modifications, common training equipment, and the following federal supply groups (FSG):

FSG 17 - Aircraft launching, landing, and ground handling equipment (trailers, platforms, slings).

FSG 41/45 - Compressors, air conditioners, and heaters.

FSG 49 - Maintenance and repair shop equipment (test stands, jigs, fixtures, noise suppressors).

FSG 61/66 - Electric wire and power distribution equipment (instrument and laboratory equipment).

Other Federal Supply Groups - Pumps, gauges, nitrogen servicing units, and specialized tools.

The following table shows a comparison, by year, by category, of support equipment:

(In Millions of Dollars)

<u>NOMENCLATURE</u>	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
FSG 17	\$44.1	\$60.1	\$62.8	\$86.5
FSG 49	77.2	90.6	203.9	258.2
FSG 41/45	78.1	61.9	66.0	133.3
FSG 61/66	55.7	56.3	53.1	79.6
Other FSGs	33.7	28.5	30.0	69.4
Depot Plant Equipment	18.5	4.9	.7	2.9
Common Training Equipment (Simulators)*	87.4	-	2.9	189.9
 TOTAL COMMON GROUND EQUIPMENT	 394.7	 302.3	 419.4	 819.8

*FY 84 Common Training Equipment includes simulators for the C-5

Industrial Responsiveness

The Industrial Responsiveness program provides for capital type rehabilitation, necessary real property maintenance and improvements, and compliance with environmental and energy requirements for Air Force owned, contractor-operated industrial facilities. Also included is the Manufacturing Technology program which engineers new manufacturing methods, processes, and techniques to reduce acquisition and support costs, reduce production leadtimes, improve product quality and durability through manufacturing, provide a domestic source, increase production yields, and assure economic producibility of Air Force war fighting equipment. Funding is also provided for Industrial Productivity and Responsiveness Improvement efforts, which include industrial base Technology Modernization (an incentivization effort for private capitalization) and Industrial Preparedness Measures, and for Industrial Base planning.

The following table shows a comparison, by year, of the Industrial Responsiveness Program:

(In Millions of Dollars)

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
Expansions	11.3	28.3	13.5	4.2
Packing, Crating, & Handling	.1	.1	.1	.1
Capital Type Rehabilitation	17.	29.1	25.8	31.6
Modernization & Replacement	-	-	2.0	1.2
Manufacturing Technology	58.3	40.0	46.4	36.3
Industrial Base Planning	-	4.8	2.0	3.3
Environmental Protection	15.9	18.3	5.4	3.4
Industrial Productivity & Respons. Imp.	-	19.9	71.8	33.7
Energy Conservation	.6	5.3	2.5	3.1
TOTAL Industrial Responsiveness	103.2	145.8	169.5	116.9

The requirements for FY 1984 in each category in the above table are as follows:

Expansions: Required for real property modifications at Air Force Plant 3, Tulsa, OK; Air Force Plant 37, Cincinnati, OH; and Air Force Plant 85, Columbus OH.

Packing, Crating, & Handling: Required to prepare idle government owned equipment for shipment to other locations.

Capital Type Rehabilitation: Required for rehabilitation of government-owned, contractor-operated industrial production facilities. Included are projects for property operated by McDonnell Douglas, Tulsa, OK; General Dynamics, Fort Worth, TX; Lockheed, Marietta, GA; Northrup, Lockheed, Rockwell International, and a service contractor at Palmdale, CA; and Rockwell International, Columbus, OH.

Manufacturing Technology: Required for the establishment, validation, and demonstration necessary to convert existing technology resulting from RDT&E, IR&D, and private fund sources into new manufacturing methods, procedures, and equipment beyond the current manufacturing state-of-the-art. Directly improves the productivity of the U.S. defense industrial base required to produce and support Air Force systems. Direct government benefits include reduced production costs, reduced lead times, improved quality and durability through manufacturing, economic producibility, domestic availability and improved production yields. Establishes a systematic approach to production and manufacturing throughout the aerospace industry and assures a high return on investment by timely availability of results for the whole industry, as well as directly reducing the acquisition and maintenance costs of Air Force war fighting equipment for which the appropriate technologies have been implemented. All projects are conducted under contract with private industry, primarily by competitive procurement, with results widely disseminated throughout the industry. All capital investments necessary for implementation within industry are borne by industry and those for application within the Air Force Air Logistics Centers are borne by the government. Projects are negotiated with an Air Force business strategy aimed at securing all data rights, committed to establishing competitive production sources, and requiring an open end-of-contract demonstration of results achieved. Major acquisition and logistics support thrusts in the FY 1984 program include Metallic Airframe Fabrication (\$1.6M), Composite Airframe Fabrication (\$7.3M), Propulsion Systems Production and Productivity (\$2.5M), Airborne Electronic Components Manufacturing (\$1M), Flexible Automated Batch Manufacturing (\$2.4M), Depot Maintenance and Repair Productivity (\$10.5M), Integrating Systems for Manufacturing Operations Control and Automation (\$13.2M), and Validation and Demonstration of Integrated Computer Aided Manufacturing (\$8M).

Industrial Base Planning: Will analyze industrial capability to meet Air Force manufacturing requirements for various military scenarios and determine problems, deficiencies, bottlenecks, and opportunities for improvements. Will develop rational plans for needed government actions based on and prioritized by Air Force mission requirements. Will integrate the sub-elements of the Air Force Industrial Responsiveness program to provide a comprehensive and cohesive approach to improving the industrial base. FY 1984 areas will include the forging industry, the microcircuit industry, the F-15 industrial base, and others.

Environmental Protection: Required for compliance with federal, state, and local regulations and laws for control atmospheric, water, and other industrial pollution. Includes industrial waste treatment and pollution control facilities at Air Force Plant 6, Marietta, GA; Air Force Plant 3, Tulsa, OK; and others.

Industrial Productivity and Responsiveness Improvement: Funds industrial base Technology Modernization (Tech Mod) application/manufacturing engineering for those industrial modernization actions in which such government sharing of the technical risk is a necessary incentive for private capitalization. Tech Mods provide an acquisition tool to encourage private capitalization for modernization of the defense industrial base. Will fund efforts for the Boeing Military Aircraft Company, F-16 sub-contractors, Rockwell International, General Electric Company, and B-1B program sub-contractors. Also includes Industrial Preparedness Measures to help assure that industrial capacity meets Air Force acquisition and logistics requirements.

Energy Conservation: Required for high return on investment projects at Air Force Plant 6, Marietta, GA and Air Force Plant 85, Columbus, OH..

Modernization and Replacement: Required for the real property replacement supporting installation of a leased modern electronic communications system at Air Force Plant 4, Fort Worth, TX.

1 COMPONENT Air Force		FY 1984 FACILITY		PROJECT DATA		2 DATE 12 Jul 82	
3 INSTALLATION AND LOCATION Air Force Plant 3 Rockwell Int'l, Tulsa OK				4 PROJECT TITLE			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 221-221		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$2,062.0	
9 COST ESTIMATES							
ITEM				U.M.	QUANTITY	UNIT COST	COST (\$000)
Design/Build, Detail Paint Facility					1	2,062.0	2,062.0
10 DESCRIPTION OF PROPOSED CONSTRUCTION Construct an approximate 10,000 sq ft structure for providing an automated paint facility capable of processing detail parts in support of B-1B. The system will consist of: 1. Three Mill mask paint booth 1. Large primer & enamel booth with carousel 1. Cure oven 1. Material Systems 1. Carbon absorption systems							

1 COMPONENT Air Force		FY 1984		FACILITY		PROJECT DATA		2 DATE 12 July 82	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa OK McDonnell Douglas Corp.						4 PROJECT TITLE Sectionalize Emergency Feeder Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 812-226		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$214.8			
9 COST ESTIMATES									
ITEM						U/M	QUANTITY	UNIT COST	COST (\$000)
Sectionalize Emergency Feeder									\$214.8
10 DESCRIPTION OF PROPOSED CONSTRUCTION <p>Install metal-clad fusible line switches in emergency circuits where they exit buildings and enter underground raceways. Replace porcelain cut-outs with metal-clad switches.</p> <p>The project cost includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>During 1981 a set of porcelain cut-outs exploded in the Boiler House because fault current during a Failure exceeded the interrupting rating of the switches. The three (3) three-phase emergency circuits that originate in the Boiler House, B-7, route through Building Nos. 1, 5 and 6 before entering underground ducts to continue to other buildings. One (1) of these underground extensions failed twice within a twelve (12) month period, causing outages at some outlying buildings. Because of lack of isolation switches, the total emergency lighting was down until the failed circuit could be removed from the system.</p>									

1 COMPONENT Air Force		FY 1984 FACILITY		PROJECT DATA		2 DATE 12 Jul 1982	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa, OK McDonnell Douglas Corp				4 PROJECT TITLE Construct Work Platform Expansion MPC 100C			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 221-221		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$238.22	
9 COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
Building No. 1 - Work Platform							\$238.22
10 DESCRIPTION OF PROPOSED CONSTRUCTION							
<p>Construct work platform to be used by Maintenance Personnel. This platform will function as a part of the Overhead Crane System, which is an American Monorail System. The approximate dimension of the platform is 20' x 22' and will work with the existing 5-ton bridge. The 5-ton bridge selected to handle this platform will require modification by the addition of a second bridge rail. The platform will be equipped with controls that will allow it to traverse to any area within the plant.</p> <p>The project cost includes A&F services.</p> <p><u>JUSTIFICATION</u></p> <p>Presently, there is no safe platform from which Maintenance can perform their functions on the Monorail System in the Plant. In some areas of the Plant Assembly Building, corrosion is being experienced in the ductwork and the steel structure. The correction of this corrosion problem will have to be addressed in the very near future.</p>							

1 COMPONENT Air Force		FY 1984 FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa OK McDonnell Douglas Corp				4 PROJECT TITLE Install Air Compressor Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 890-144		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$259.3	
9 COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
Install New Air Compressor Building No. 7							\$259.3
10 DESCRIPTION OF PROPOSED CONSTRUCTION							
<p>Provide and install a new 400 H.P., electric driven air compressor. The installation to include: new foundation, extension of existing suction header, enlargement of existing discharge header and electric service to compressor.</p> <p>Project includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>The existing system total capacity is 7,000 CFM (2500, 1500, 1500 and 1500 CFM compressors). Average daily loads at 5100 CFM and peak loads exceeding 5500 CFM. The loss of or down-time for maintenance of the 2500 CFM unit will cause impact to production requirements.</p>							

40

1 COMPONENT Air Force		FY 1984		FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa OK McDonnell Douglas Corp					4 PROJECT TITLE Install Air Fuse Switches Expansion MPC 1000				
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 813-231		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$28.0			
9 COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Install Air Fuse Switches Building No. 3							\$28.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION Install 4/16KV primary power metal clad gang operated air fused switches to two (2) 100 KVA transformers on roof of Building No. 3. Project cost includes A&E services. <u>JUSTIFICATION</u> Existing porcelain fuse cutouts are under-rated for short circuit power fusing and blow-up. They were installed approximately thirty-eight (38) years ago and are obsolete and no longer in production. Modern power fusing and switch gear is needed to be able to restore power protection promptly in event of primary power failures (for Paint Hangar lighting and operation) with less danger to personnel and property.									

1 COMPONENT Air Force		FY 1984 FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa OK McDonnell Douglas Corporation				4 PROJECT TITLE Construct Drain Trench, Fuel Farm Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 831-157		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$50.1	

9 COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
Construct Drain Trench Fuel Farm Area				\$50.1

10 DESCRIPTION OF PROPOSED CONSTRUCTION

Construct a concrete drain trench with a grated cover along the North side of the Fuel Farm Area. Trench will tie-in to storm sewer and fuel separator.

Project cost includes A&E services.

JUSTIFICATION

This trench would be "Down-Street" of the aircraft fueling area and would preclude fuel spills from entering the storm system that presently discharges into an open stream.

1 COMPONENT Air Force		FY 19_84		FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa OK McDonnell Douglas Corporation						4 PROJECT TITLE Extend Electric Feeder Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 812-226		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$70.0			
9 COST ESTIMATES									
ITEM				U M	QUANTITY	UNIT COST	COST (\$000)		
Extend Feeder #12 to North Transformer Deck							\$70.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>Extend Feeder #12 from Manhole 21 to the North Transformer Deck and connect to the alternate position on an existing primary selector switch.</p> <p>Project cost includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>To provide prompt restoration of service to the North Transformer Deck of Building No. 4 (and F-4 Checkout Systems). In the event of the failure of the North Transformer Deck of Building No. 4 Feeder #12 now terminates in Manhole 21 near the East wall of the South one-half (1/2) of Building No. 4.</p>									

43

1 COMPONENT Air Force		FY 1984		FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 3, Tulsa OK McDonnell Douglas Corp						4 PROJECT TITLE Install Ladder and Walkway Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 221-221		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$25.4			

9 COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
Install Interior Ladder and Walkway to Fan Rooms, Bldg 3				\$25.4

10 DESCRIPTION OF PROPOSED CONSTRUCTION

Install interior ladder and walkways to fan rooms, Building No. 3. This project will install a walkway from the existing platform between Column 3 and Column 4, east wall to a point between Columns 4 and 5. A short ladder will be installed to extend through the ceiling to an existing platform level with the fan room walkway.

Project cost includes A&E Services.

JUSTIFICATION

During the winter months, the outside ladder becomes very hazardous and slippery due to the ice and snow.

1 COMPONENT USAF	FY 1984		FACILITY		PROJECT DATA		4 DATE 16 Aug 82												
3 INSTALLATION AND LOCATION AF Plant 3, McDonnell Douglas Corp Tulsa Oklahoma				4 PROJECT TITLE Environmental MPC 7000															
5 PROGRAM ELEMENT 7E011F	6 CATEGORY CODE 831-155	7 PROJECT NUMBER		8 PROJECT COST (\$000) 2200.0															
9 COST ESTIMATES																			
ITEM		U/M	QUANTITY	UNIT COST	COST (\$000)														
Industrial Waste Treatment Facility Ph III OF IV					2200.0														
10 DESCRIPTION OF PROPOSED CONSTRUCTION																			
<p>The proposed work is for Phase III of the rehabilitation of the industrial waste treatment plant (IWTP) in accordance with A&E plans and specifications provided for in Phase I (1982) of this program. The IWTP in its present condition was designed to handle waste problems of the 1950's; therefore, the IWTP needs to be brought up to date to comply with current regulations. Phase IV (\$2.0M) will be accomplished in FY 85.</p> <p>This effort is budgeted over four Fiscal Years:</p> <table border="0"> <tr> <td>FY 82</td> <td>Phase I</td> <td>A&E conceptual design.</td> </tr> <tr> <td>FY 83</td> <td>Phase II</td> <td>Final design and refurbishment of plant to existing capacity.</td> </tr> <tr> <td>FY 84</td> <td>Phase III</td> <td>Construction of final configuration to meet RCRA, Part V, requirements and provide full production capacity.</td> </tr> <tr> <td>FY 85</td> <td>Phase IV</td> <td>Closure of old containment lagoons.</td> </tr> </table>								FY 82	Phase I	A&E conceptual design.	FY 83	Phase II	Final design and refurbishment of plant to existing capacity.	FY 84	Phase III	Construction of final configuration to meet RCRA, Part V, requirements and provide full production capacity.	FY 85	Phase IV	Closure of old containment lagoons.
FY 82	Phase I	A&E conceptual design.																	
FY 83	Phase II	Final design and refurbishment of plant to existing capacity.																	
FY 84	Phase III	Construction of final configuration to meet RCRA, Part V, requirements and provide full production capacity.																	
FY 85	Phase IV	Closure of old containment lagoons.																	

1 COMPONENT USAF		FY 1984		FACILITY		PROJECT DATA		2 DATE 16 Aug	
3 INSTALLATION AND LOCATION AFP 6, Marietta GA Lockheed GA						4 PROJECT TITLE Environmental MPC 7000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 831-155		7 PROJECT NUMBER		8 PROJECT COST (\$000) 2012.0			
9 COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Upgrade Industrial Waste Treatment Plant							2012.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION The industrial waste treatment plant will be upgraded to conform to permanent standards for hazardous waste treatment facilities per Resources Conservation and Recovery Act (RCRA) Part B permit requirements. The following revisions are required: <ul style="list-style-type: none"> a. Install a new sludge basin with containment dikes, liner, and sludge removal system. b. Install a valve at the headwall where the existing 24" organic tower gravity line empties into the aeration pond. c. Provide secure storage of treatment plant chemicals. d. Increase capacity of the plant to handle increased wastewater flow. Install equipment in the Industrial Waste Treatment Plant to destroy highly stable compounds such as: protein foam (fire extinguishment type), synthetic fuel, paint strippers, heat treatment solutions and penetrant inspection fluids. Basis of Need Changes to the facility will be needed to comply with RCRA, Part B standards. If permanent standards are not complied with US EPA/State of Georgia will not allow the treatment plant to operate.									

46

1 COMPONENT USAF		FY 19 84		FACILITY		PROJECT DATA		2 DATE 8 Sep 82	
3 INSTALLATION AND LOCATION Air Force Plant 36, General Electric, Cincinnati OH						4 PROJECT TITLE Modification of Cells M34/M35, Bldg "B" for F101 Engine Testing MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 221-222		7. PROJECT NUMBER		8 PROJECT COST (\$000) \$725.0			
9 COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Modification of Cells M34/35, Building "B" for F101 Engine Testing							725.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>The modification of Test Cells M34 and M35 to accommodate Air Force engine programs requires the addition of an Augmentor Cooling Water System to the cells.</p> <p>To provide thermal protection to the augmentor system it is necessary to have an augmentor cooling water system which will maintain the exhaust stack plenum system at 500° F or below. This system consists of three major divisions: (1) water supply (reservoir) to the facility, (2) Water delivery system to the cells consisting of pumps and piping from the water reservoir to the cell augmentor, (3) augmentor water controller system to provide the required quantity of water to the augmentor - a microprocessor system which senses exhaust stack temperatures and fuel flow will provide the control for the water flow regulating valves in the water piping to the augmentor insert.</p> <p><u>BASIS OF NEED</u></p> <p>After Burner Testing capability is not included in any of the AF Plant 36 Production Large Turbofan test cells. This project will provide the capability. Installation of augmentor cooling water M34/35, Bldg "B" will be required to accommodate the forecasted F110 Program (F101 Derivative engine) production rate and F101 outyear needs for B-1B and other engines.</p>									

1. COMPONENT Air Force		FY 19 ⁸⁴ FACILITY		PROJECT DATA		2. DATE 12 July 1982	
3. INSTALLATION AND LOCATION Air Force Plant 85, Columbus OH Rockwell International				4. PROJECT TITLE Install Elevator Expansion MPC 1000			
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE 221-221		7. PROJECT NUMBER		8. PROJECT COST (\$000) 129.0	
9. COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
Install Elevator -B/4 Office							129.0
10. DESCRIPTION OF PROPOSED CONSTRUCTION							
<p>Construction of an 8'x10' elevator lobby on two floors and an 8'x10' elevator cab of 4,000 pound capacity. The elevator cab should be able to handle passengers, freight, and emergency transport. Construction includes new concrete block shaft, precast slab with concrete fill, pressure relief, lighting, and controls per 117.1 for handicapped.</p> <p>Project cost includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>In order to facilitate pedestrian, freight, and particularly access for the handicapped between first and second floors, an elevator is needed. Presently, the administrative area of Bldg 4 has no access for handicapped, except stairs.</p>							

1 COMPONENT Air Force		FY 1984 FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 85, Columbus OH Rockwell International				4 PROJECT TITLE Install Load Center and Bus Duct Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 813-231		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$615.0	
9 COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
Install Load Center and Bus duct for Heat Treating Area							\$615.0
10 DESCRIPTION OF PROPOSED CONSTRUCTION							
<p>Install one 2000 KVA load center and bus duct to accommodate the additional load in the heat treating area.</p> <p>Project cost includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>The B-1B program requires heat treating of titanium, aluminum, and steel. This will require the addition to the facility of three electric vacuum furnaces, and one steel heat treat furnace, plus the conversion of four existing furnaces from gas to electric heat. This increase in load will exceed the reserve capacity of the existing electrical system.</p>							

49

1. COMPONENT Air Force		FY 1984		FACILITY		PROJECT DATA		2. DATE 12 July 1982	
3. INSTALLATION AND LOCATION Air Force Plant 85, Columbus OH Rockwell International						4. PROJECT TITLE Install Handicapped Ramps Expansion MPC 1000			
5. PROGRAM ELEMENT 78011F		6. CATEGORY CODE		7. PROJECT NUMBER		8. PROJECT COST (\$000) \$17.0			
9. COST ESTIMATES									
ITEM						U/M	QUANTITY	UNIT COST	COST (\$000)
Install Handicapped Ramps Building 6 Entrances									\$17.0
10. DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>Installation of curb ramps at main entry and secondary entry to east of office area. A ramp will also be required at main entry steps and some revision of hardware at secondary entry doors to facilitate operation by handicapped.</p> <p>Project cost includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>Building 6 has stairs and curbs at main entry to office area from employee parking lot that are difficult for handicapped to negotiate.</p>									

1 COMPONENT Air Force		FY 1984 FACILITY		PROJECT DATA		2 DATE 12 July 1982	
3 INSTALLATION AND LOCATION Air Force Plant 85, Columbus, OH Rockwell International				4 PROJECT TITLE Install Compressed Air System Expansion MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 890-144		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$5,025.0	
9 COST ESTIMATES							
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)
Install B-1B Compressed Air System Buildings 3 and 6							\$5,025.0
10 DESCRIPTION OF PROPOSED CONSTRUCTION							
<p>Design and install two (2) new compressed air systems which are to include compressors, dryers, distribution piping and all auxiliaries. These systems are to be located at the east end of Bldg 3 and the west end of Bldg 6. These new systems will be sized to match the compressed air requirements for the drilling operations on the B-1B aircraft.</p> <p>Project cost includes A&E services.</p> <p><u>JUSTIFICATION</u></p> <p>The existing compressed air system has a firm capacity of 9,000 SCFM with 3,000 SCFM in reserve for outages. The projected compressed air requirements for the wing carry through, forward intermediate fuselage, and nacelle power feed drilling operations is 52,000 SCFM. This new requirement, plus the additional normal plant air requirements, far exceeds the present capacity of the powerhouse. The power feed drilling operation also has a critical low pressure characteristic that must be addressed.</p>							

1 COMPONENT Air Force		FY 1984		FACILITY		PROJECT DATA		2 DATE 3 Aug 1982	
3 INSTALLATION AND LOCATION Air Force Plant 85, Rockwell International Columbus, Ohio						4 PROJECT TITLE B-1B Production Facility Expansion, MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 221-221		7 PROJECT NUMBER		8 PROJECT COST (\$000) \$250.0			
9 COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Office Enclosures for shop support training							\$250.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION									
Construct new offices and classrooms within buildings #5 to include partitions, ceiling treatment, lighting and air conditioning.									
<u>JUSTIFICATION</u>									
Due to new and varied requirements of the B-1B program, new office space for support of manufacturing operations, including training areas for personnel, will be required for efficient performance of employees in manufacturing environment.									

52

1 COMPONENT Air Force		FY 1984		FACILITY		PROJECT DATA		2 DATE 3 Aug 1982	
3 INSTALLATION AND LOCATION Air Force Plant 85, Rockwell International Columbus, Ohio						4 PROJECT TITLE B-1B Production Facility Expansion, MPC 1000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 221-221		7 PROJECT NUMBER		8 PROJECT COST (\$000) 3,744.0			
9 COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Ventilation Improvement Sealing Operation Building #6							3,744.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>Install new winter/summer make-up air units, summer supply air units and exhaust fans; add air filters for existing supply units handling outside air; renovate all existing ventilation equipment in building #6.</p> <p><u>JUSTIFICATION</u></p> <p>The sealing operation of the B-1B components for fuel tightness is critical to the operation of the airplane. Ventilation of the area and local ventilation at equipment must be properly maintained to support the sealing operation.</p>									

53

1 COMPONENT USAF		FY 19 ⁸⁴		FACILITY		PROJECT DATA		2 DATE 2 Feb 83	
3 INSTALLATION AND LOCATION AFP 44 Hughes-Tucson AZ						4 PROJECT TITLE Environmental MPC 7000			
5 PROGRAM ELEMENT 78011F		6 CATEGORY CODE 831-155		7 PROJECT NUMBER		8 PROJECT COST (\$000) 6,165.0			
9 COST ESTIMATES									
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)		
Groundwater Decontamination							6,165.0		
10 DESCRIPTION OF PROPOSED CONSTRUCTION									
<p>This project consists of:</p> <ul style="list-style-type: none"> a. Installing a reclamation wellfield to pump contaminated groundwater from the aquifer underlying AFP 44; b. Constructing a new treatment facility to decontaminate the withdrawn water; and c. Modifying the existing Waste Treatment facility to make maximum use of reclaimed water in support of AFP 44 operations. <p><u>Basis of Need</u></p> <p>The planned project is necessary to fulfill Air Force responsibilities under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) incident to release of hazardous materials/wastes to the environment.</p>									

DD FORM 1391

PREVIOUS EDITIONS MAY BE USED INTERNALLY
UNTIL EXHAUSTED
U.S. Government Printing Office: 1980-510-071/A122

PAGE 100

54

War Consumables

The funds requested, along with prior funded assets, will provide additional wartime support needed, in the event of hostilities, to sustain operations until such time as production could be expanded to provide the required level of support. Included in this program are auxiliary fuel tanks, missile launchers, pylons, ejector racks, and adaptors which are consumed during wartime operations. Replacements for peacetime attrition of these same items are also funded. One complete set of this equipment per aircraft is generally funded in the Aircraft Procurement line items or in the Modification line items. All remaining requirements are funded from the War Consumables line. Funding of \$92.5 million requested in FY 1984 relates to line items included in multiyear contracts executed in a prior fiscal year.

The following is a breakout, by fiscal year, of the War Consumables program:

(In Millions of Dollars)

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
F-4 Aircraft	-	-	17.5	-
F-15 Aircraft	-	-	-	3.2
F-16 Aircraft	77.9	123.9	124.5	176.8
HH-53 Aircraft	5.9	-	-	-
AGM-65 Launchers	-	-	38.4	39.0
AGM-88 Launchers	-	-	2.1	2.2
	----	----	----	----
Total War Consumables	83.8	123.9	182.5	221.2

Other Production Charges

This program provides for items, such as Classified Projects, Alternate Mission Equipment, and Range Improvement, that are not directly related to other procurement lines in this appropriation and cannot be reasonably allocated and charged thereto. It also includes items, such as Electronic Countermeasure (ECM) Pods, Precision Location Strike System, LANTIRN, GBU-15 Pods, and 30MM Gun Pods, that are used by more than one weapon system and managed as end items themselves. The following table provides a comparison, by fiscal year, of the items in this program:

(In Millions of Dollars)

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985</u>
Classified Projects ^{1/}	\$700.5	\$551.9	\$1047.4	\$1188.3
ECM Pods	232.5	257.1	294.7	410.7
Pave tack Cradles	-	5.2	5.9	-
Airborne Video Tape Recorder/ Cockpit TV Sensor	10.5	8.4	10.0	2.7
Alternate Mission Equipment	38.6	15.1	14.2	14.8
Range Improvement	6.8	4.2	7.8	10.5
GBU-15	6.5	9.5	-	-
LANTIRN	5.0	15.4	4.5	201.3
AF Academy Sailplanes	.4	-	-	-
GPU-51A (30MM Gun Pods)	43.7	29.2	28.1	-
Classified Avionics Program	-	90.2	4.0	108.9
Precision Location Strike System	1.7	1.8	-	76.5
TOTAL OTHER PRODUCTION CHARGES	\$1046.2	\$988.0	\$1416.6	\$2013.7

^{1/} Includes \$36.1 million in FY 82, \$51.9 million in FY 83, \$39.7 million in FY 84, \$47.1 million in FY 85 for NFIP.

Justification for the various line items is as follows:

Classified Projects:

Includes the Air Force Tactical Improvement Program and several National defense projects which are classified Special Access.

ECM Pods:

Includes the procurement of new pods, such as the ALQ-131, and update of inventory pods, such as the ALQ-119, to maintain capability to counter the latest Soviet threats. The pods are used on several tactical strike/reconnaissance aircraft.

Pave Track Cradles:

Pave Tack provides a 24 hour target acquisition/laser designation system for F-4E, RF-4C, and F-111F aircraft. The funds in FY 1984 procure cradles which are required to mate the Pave Tack pod with the F-111F aircraft.

Airborne Video Tape Recorder (AVTR)/Cockpit TV Sensor (CTVS):

The AVTR records all audio available at the aircrew headset and all video displays on the radar/Electro-Optical display and head-up display (HUD). Aircrews, maintenance crews, and combat and training units use the video tape recordings to analyze mission and training results and for maintenance trouble shooting. The AVTR and CTVS will be common to the entire tactical force. The CTVS will replace the existing gun camera which employs film; the advantage is that no film processing is required, making the data available for use immediately after landing. The CTVS will provide imagery data to the AVTR for recording, including a split-screen presentation for multiple video sources.

Alternate Mission Equipment:

The program procures electronic warfare and airborne photography/reconnaissance equipment to provide countermeasure capabilities against changing enemy electronic defenses or for other unpredicted and urgent operational requirements.

Range Improvement:

This is a joint Air Force/Navy program to procure pods which provide accurate kill/no kill data for assessment of tactics and aircrew training at the Air Combat Maneuvering Range. The pod is mounted on a standard launch rail and transmits attitude, airspeed, altitude, angle of attack, and weapons information to ground sites.

GBU -15 Pods:

This program provides a radio frequency link between an aircraft and a GBU-15 Modular Guided Weapon System from weapon launch to impact to enable man-in-the-loop guidance for improved weapon CEP and enhanced aircraft survivability. The pods are used on F-4E and F-111F aircraft to attack heavily defended targets of high military value.

Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN):

Includes procurement of new pods to provide a night, under weather capability on the A-10 and F-16 aircraft to attack ground targets on low level mission in a single pass.

Air Force Academy Sailplanes:

Powered sailplanes will be procured for the Air Force Academy to overcome runway and airspace constraints of the soaring program, thereby enhancing flying safety. Soaring is the primary motivational program for Air Force Academy cadets, 75% of whom go on to undergraduate flying training. The powered sailplanes will enable every cadet to solo in a glider, a goal considered essential by the Board of Visitors.

30MM Gun Pods:

These pods will provide a near term, reliable, relatively low cost, easy-to-employ, anti-armor killing weapon for A-7, F-4 and F-16 fighter aircraft.

Classified Avionics Program:

This is a Classified Program and Special Access is required for programmatic details.

Precision Location Strike System (PLSS):

PLSS is designed to locate, identify, and guide applicable munitions or weapon systems strikes on enemy emitters in all-weather conditions from standoff ranges. The rephasing of procurement funding due to strict compliance with full funding policy causes a slip of the program IOC. This effort funds the baseline location mission PLSS. The strike mission funding is provided in the appropriate aircraft and weapon lines in accordance with Congressional intent.

U.S. Contribution to NATO Airborne Early Warning & Control (AEW&C) Program: This contribution provides the U.S. share of costs, for acquisition, operation, and support, of 18 AWACS aircraft, acquisition of basing and modification of European ground radar sites. The total U.S. share through FY 1986, to be paid in annual increments, is \$1,839.7 million. NATO's acquisition of its own force of 18 AWACS aircraft, to be complemented by 11 United Kingdom Nimrod Airborne Early Warning aircraft, for operations in Europe will make a major improvement in the military effectiveness of the Alliance, particularly against the growing low level air attack threat posed by the Warsaw Pact. This AWACS force, with attendant equipage, basing, and modification to the European ground radar environment, will provide improved air defense and counter-air operations for NATO forces. It will provide deep look surveillance and deterrence of potential Warsaw Pact threats, and improve the military responsiveness of the Alliance through its early warning, surveillance and information distribution capabilities. In wartime, the AWACS will increase the effectiveness of Allied weapon systems while helping to standardize system capabilities. The NATO AWACS will be interoperable with the USAF AWACS, the UK Nimrod AEW, and with both U.S. tactical and European national command and control systems. The unprecedented Alliance-wide commonly funded program is the most practical way for the Alliance to attain an effective Airborne Early Warning capability.

(In Millions of Dollars)

	<u>FY 1982</u>	<u>FY 1983</u>	<u>FY 1984</u>	<u>FY 1985*</u>
NATO AEW&C	\$344.3	\$186.1	\$112.1	0

*Note: U.S. contribution will be budgeted in FY 1985 and subsequent years by the U.S. Army as part of the NATO infrastructure since the acquisition phase completes in FY 1984.

COMPARISON OF FY 1983 PROGRAM REQUIREMENTS AS REFLECTED
IN FY 1983 BUDGET WITH FY 1983 PROGRAM REQUIREMENTS AS
SHOWN IN FY 1984 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per 1983 Budget	Totprogram Requirements Per 1984 Budget	Increase + or Decrease -
Combat Aircraft	8,870,400	8,557,300	-313,100
Airlift Aircraft	805,000	1,116,500	+311,500
Other Aircraft	156,500	173,800	+ 17,300
Modification of In-Service Aircraft	2,600,000	2,473,600	-126,400
Aircraft Spares and Repair Parts	3,645,600	3,528,000	-117,600
Aircraft Support Equipment and Facilities	1,757,300	1,746,100	- 11,200
Reimbursable Program	152,000	378,900	+226,900
 Total Fiscal Year Program	 17,986,800	 17,974,200	 - 12,600

EXPLANATION BY BUDGET ACTIVITY

1. Combat Aircraft - (-\$313.1 million). The net decrease was the result of specific Congressional changes to the FY 1983 Budget Request (-\$185.3 million): F-15, -\$56.4M; F-15 Advance Procurement, -\$143.4M; F-16, -\$23.8M; and MC-130H, +\$38.3M; a share of undistributed Congressional reductions for personnel security clearance costs (-\$2.5 million); a share of undistributed Congressional reductions for Independent Research and Development and Bid and Proposal (IR&D and B&P) costs (-\$45.4 million); proposed reprogrammings (-\$72.3 million): \$50.0 million from F-15 and \$8.0M from F-16 to Military Personnel, AF and Reserve Personnel, AF and \$14.3 million from the KC-10 to Missile Procurement, AF; and below threshold reprogrammings (-\$7.6 million).

2. Airlift Aircraft - (+\$311.5 million). The net increase was the result of specific Congressional changes to the FY 1983 Budget Request (+\$323.8 million): Wide Body Aircraft, +\$144.8M; C-130H +\$72.5M; and C-130H Ski-equipped, +\$106.5M; a share of undistributed Congressional reductions for personnel security clearance costs (-\$0.6 million); a share of undistributed Congressional reductions for IR&D and B&P costs (-\$10.6 million); and below threshold reprogrammings (-\$1.1 million).

4. Other Aircraft - (+\$17.3 million). The net increase was the result of a proposed reclassification reprogramming to TR-1/U-2 aircraft from Other Production Charges (+\$18.8 million), a share of undistributed Congressional reductions for IR&D and B&P costs (-\$1.4 million), and below threshold reprogrammings (-\$0.1 million).

5. Modification of In-Service Aircraft - (-\$126.4 million). The net decrease was the result of specific Congressional changes to the FY 1983 Budget Request (-\$43.7 million): B-52, -\$22.4M; A-7, +\$49.0M; F/RF-4, -\$7.3M; CFM56 Re-engining of KC-135s, -\$115.0M; JT3D Re-engining of KC-135s, +\$60.0M; OV-10, -\$3.5M; and an undistributed reduction of -\$4.5M; a share of undistributed Congressional reductions for personnel security clearance costs (-\$0.8 million); a share of undistributed Congressional reductions for IR&D and B&P costs (-\$24.0 million); proposed reprogrammings (-\$59.0 million): \$18.7 million to Military Personnel, AF and Reserve Personnel, AF; \$31.2 million to O&M, AF; and \$9.1 million to Missile Procurement, AF; and below threshold reprogrammings (+\$1.1 million).

6. Aircraft Spares and Repair Parts - (-\$117.6 million). The decrease was the result of specific Congressional changes to the FY 1983 Budget Request (-\$101.5 million), a share of undistributed Congressional reductions for personnel security clearance costs (-\$1.1 million), a share of undistributed Congressional reductions for IR&D and B&P costs (-\$9.5 million), a proposed reprogramming to Other Production Charges and Missile Procurement (-\$5.0 million), and below threshold reprogrammings (-\$0.5 million).

7. Aircraft Support Equipment and Facilities - (-\$11.2 million). The net decrease was a result of specific Congressional changes to the FY 1983 Budget Request (+\$6.0 million): Ground Support Equipment, -\$20.0M; War Consumables, -\$12.5M; and Other Production Charges, +\$38.5M; a share of undistributed Congressional reductions for personnel security clearance costs (-\$0.6 million); a share of undistributed Congressional reductions for IR&D and B&P costs (-\$10.2 million); a proposed reclassification reprogramming from Other Production Charges to TR-1/U-2 (-\$18.8 million); a proposed reprogramming from Aircraft Spares and Repair Parts (+\$4.2 million); and below threshold reprogrammings (+\$8.2 million).

8. Reimbursable Program - (+\$226.9 million). The increase was due to the receipt of more customer orders than anticipated.

COMPARISON OF FY 1983 FINANCING AS REFLECTED
IN FY 1983 BUDGET WITH FY 1983 FINANCING AS
SHOWN IN FY 1984 BUDGET

(In Thousands of Dollars)			
	Financing Per FY 1983 Amended Budget	Financing Per FY 1984 Budget	Increase (+) or Decrease (-)
Program Requirements.	17,986,800	17,974,200	- 12,600
Program requirements (Service Account)	(17,834,800)	(17,595,300)	(-239,500)
Program requirements (Reimbursable)	(152,000)	(378,900)	(-226,900)
Less:			
Anticipated Reimbursements	152,000	378,900	+226,900
Reappropriation	120,000	170,000	+ 50,000
Add:			
Transferred to other accounts	-	132,100	+132,100
Reduction pursuant to P.L. 97-377	-	101,100	+101,100
Appropriation	17,714,800	17,658,500	- 56,300

EXPLANATION OF CHARGES IN FINANCING

The Fiscal Year 1983 program has decreased \$12,600 thousand since submission of the FY 1983 budget. Adjustments by category of financing are explained below:

1. Anticipated Reimbursements. The increase is due to a revised estimate of customer orders.
2. Reappropriation. The increase is due to a Congressionally directed transfer of \$50,000 from Wide Bodied Aircraft.
3. Transferred to Other Accounts. The decrease is due to Air Force reprogramming of \$132,100 thousand (~\$72.3 million Combat Aircraft, -\$59.0 million Modification of Aircraft, -\$0.8 million Spares) primarily for Military and Civilian pay raises and various other reprogrammings.
4. Reduction Pursuant to P.L. 97-377. The decrease of \$101,100 thousand is a Congressionally directed action (\$45.4 million combat aircraft, \$10.6 million Airlift Aircraft, \$1.4 million Other Aircraft, \$24.0 million Modification of Aircraft, \$9.5 million Spares and \$10.2 million in Aircraft Support Equipment).

COMPARISON OF FY 1982 PROGRAM REQUIREMENTS AS REFLECTED
IN FY 1983 BUDGET WITH FY 1982 PROGRAM REQUIREMENTS AS
SHOWN IN FY 1984 BUDGET

SUMMARY OF REQUIREMENTS (In Thousands of Dollars)

	Total Program Requirements Per 1983 Budget	Total Program Requirements Per 1984 Budget	Increase + or Decrease -
Combat Aircraft	\$5,462,900	\$5,314,000	\$-148,900
Airlift Aircraft	379,500	109,500	-270,000
Other Aircraft	146,500	194,500	+48,000
Modification of In-Service Aircraft	2,115,100	2,168,800	+53,700
Aircraft Spares and Repair Parts	3,898,600	3,899,600	+1,000
Aircraft Support Equipment and Facilities	2,019,298	1,972,198	-47,100
Reimbursable Program	470,000	339,397	-130,603
 Total Fiscal Year Program	 \$14,491,898	 \$13,997,995	 -493,903

EXPLANATION BY BUDGET ACTIVITY

1. Combat Aircraft - (-\$148.9 million). The net decrease was the result of Congressional denial of a reprogramming for F-15 advance procurement (\$25.0 million), Congressional denial of a KC-10 supplemental (\$120.0 million), and below threshold reprogrammings (- \$3.9 million).
2. Airlift Aircraft - (-\$270.0 million). The decrease was a result of Congressional denial of a combined supplemental (\$99.1 million), reappropriation (\$73.2 million), and reprogramming (\$97.7 million) request for C-5B advance procurement.
4. Other Aircraft - (+48.0 million). The increase was the result of a reclassification reprogramming from Other Production Charges in Aircraft Support Equipment and Facilities.
5. Modification of In-Service Aircraft - (+\$53.7 million). The net increase was the result of Congressional action denying use of CRAF funds as a source for a C-5B reprogramming (+\$47.7 million) and below threshold reprogrammings (+\$6.0 million).
6. Aircraft Spares and Repair Parts - (+\$1.0 million). The decrease was the result of below threshold reprogrammings.
7. Aircraft Support Equipment and Facilities - (-\$47.1 million) The net decrease was a result of a reclassification reprogramming from Other Production Charges to TR-1/U-2 procurement (-\$48.0 million) and below threshold reprogrammings (+\$0.9 million).
8. Reimbursable Program - (-\$130.6 million). The decrease was due to receipt of fewer customer orders than anticipated.

COMPARISON OF FY 1982 FINANCING AS REFLECTED
IN FY 1983 BUDGET WITH FY 1982 FINANCING AS
SHOWN IN FY 1984 BUDGET

(In Thousands of Dollars)			
	Financing Per FY 1982 Amended Budget	Financing Per FY 1983 Budget	Increase (+) or Decrease (-)
Program Requirements.	14,491,898 ^{a/}	13,997,995	-493,903
Program requirements (Service Account)	14,021,898	13,658,598	-363,300
Program requirements (Reimbursable).	470,000	339,397	-130,603
Less:			
Anticipated Reimbursements	470,000	339,397	-130,603
Reappropriation	162,900	89,700	- 73,200
Add:			
Transferred to other accounts	179,100	200,100	+ 21,000
Unobligated Balance to finance subsequent year budget line		170,000	+170,000
Appropriation	14,038,098 ^{a/}	13,938,998	- 99,100

^{a/} Includes proposed supplemental of \$219,100 thousand.

EXPLANATION OF CHARGES IN FINANCING

The Fiscal Year 1982 program has decreased \$493,903 thousand since submission of the FY 1983 budget. Adjustments by category of financing are explained below.

1. Anticipated Reimbursements. The decrease of \$130,603 thousand is due to receipt of fewer customer orders than anticipated.
2. Reappropriations. The decrease of \$73,200 thousand results from the anticipated transfer of CRAF unobligated balances (\$36.1 million FY 80 and \$37.1 million FY 81 to FY 1982) not materializing. The remaining reappropriation of \$89,700 thousand is made up of \$65,700 thousand for F-16 and \$24,000 thousand for Other Production Charges going from FY 1981 to FY 1982.
3. Transfer to Other Accounts. The increase of \$12,000 thousand is due to a \$12,000 thousand transfer to O&M, AF as part of the supplemental and a \$9,000 thousand transferred to RDT&E, AF FY 1982 for pay raise.
4. Unobligated Balance to Finance Subsequent Year Budget Plans. The increase of \$170,000 thousand is a financing adjustment per Congressional direction as specified in PL. 97-377.
5. Appropriation The decrease of \$99,100 thousand is the result of a Congressional denial of a proposed supplemental of \$99,100 thousand for the C-5B.

FLIGHT SIMULATOR PROCUREMENT PROGRAM
(Dollars in Millions)

APPROPRIATION: Aircraft Procurement, Air Force

Weapon System	Type	P-1 Line Item	FY 82 & Prior		FY 83		FY 84		FY 85		FY 86	
			Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
B-1	WST & MT	61							3	129.2	3	126.4
	Spares	60								10.4		8.5
	TOTAL								3	139.6	3	134.9
B-52	OAS PTT & WST/OSMT		9/6/1	365.9								
	Spares			20.1								
	TOTAL		9/6/1	386.0								
C-5	WST	18								22.9		47.6
	ARPTT	61								18.8		
	Spares	60								1.1		
	TOTAL									42.8		47.6
C-141	ARPTT	61								18.2		
	Spares	60								1.1		
	TOTAL									19.3		
EF-111	OFT	61					2.9			23.7		
	Spares	60								2.0		
	TOTAL						2.9			25.7		
F-15	OFT	5	11	81.1	1	14.5	2	29.5	2	31.0	2	33.0
	TOTAL		11	81.1	1	14.5	2	29.5	2	31.0	2	33.0
F-16	OFT	8	13	163.2		45.3	1	42.5	3	104.0	4	89.2
	TOTAL		13	163.2		45.3	1	42.5	3	104.0	4	89.2
KC-10A	MS		1	16.6	1	18.3			1	24.1		
	CPT/ROPTT		1/1	2.6	1/1	5.5			1/1	4.0		
	TOTAL		1/1/1	19.2	1/1/1	23.8			1/1/1	28.1		
NCT	OFT											2.2
	TOTAL											2.2
TTB	TBD											20.2
	TOTAL											20.2
GRAND TOTAL				649.2		83.6		74.9		390.5		327.1

Exhibit P-43 (pg 1 of 3)

FLIGHT SIMULATOR PROCUREMENT PROGRAM
(Dollars in Millions)

APPROPRIATION: Aircraft Procurement, Air Force

Weapon System	Type	P-1 Line Item	FY 87		FY 88		Cost to Complete		Total COST	
			Qty	Amt	Qty	Amt	Qty	Amt	Qty	Amt
B-1	WST & MT	61							6	255.6
	Spares	60								18.9
	TOTAL								6	274.5
B-52	OAS PTT & WST/OSMT								9/6/1	365.9
	Spares									20.1
	TOTAL								9/6/1	386.0
C-5	WST	18		6.9						77.4
	ARPTT	61								18.8
	Spares	60								1.1
	TOTAL			6.9						97.3
C-141	ARPTT	61								18.2
	Spares	60								1.1
	TOTAL									19.3
EF-111	OFT	61								26.6
	Spares	60								2.0
	TOTAL									28.6
F-15	OFT	5	2	35.2	2	37.4			22	261.7
	TOTAL		2	35.2	2	37.4			22	261.7
F-16	OFT	8	5	85.2	5	89.1	477.0		35	1,095.5
	TOTAL		5	85.2	5	89.1	477.0		35	1,095.5
KC-10A	MS	12							3	59.0
	CPT/BOPTT								3/3	12.1
	TOTAL								3/3/3	71.1
NGT	TBD	25		26.0		26.1	34.1			88.4
	TOTAL			26.0		26.1	34.1			88.4
TTB	TBD	27		19.2		20.4	158.9			218.7
				19.2		20.4	158.9			218.7
GRAND TOTAL				172.5		173.0	670.0			2,541.1

Exhibit P-43 (pg 2 of 3)

Legend

ARPTT	Air Refueling Part Task Trainer
BOPTT	Boom Operator Part Task Trainer
CPT	Cockpit Procedures Trainer
MS	Mission Simulator
OAS PTT	Offensive Avionics Station Part Task Trainer
OFT	Operational Flight Trainer
OSMT	Offensive Station Mission Trainer
TBD	To Be Determined
WST	Weapon System Trainer

Exhibit P-45 (pg 3 of 3)

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO. AVIONICS MODERNIZATION (OAS), MN-3023

MODELS OF AIRCRAFT AFFECTED: B-52 G/H

DESCRIPTION/JUSTIFICATION: PRESENT BOMBING NAVIGATION SYSTEM WAS DESIGNED USING 1950 TECHNOLOGY. SYSTEM SUFFERS FROM LOW RELIABILITY, HIGH SUPPORT COST AND INADEQUATE CAPABILITY THUS REDUCING WEAPON SYSTEM EFFECTIVENESS. UPDATE REPLACES PRESENT ANALOG SYSTEM WITH A DIGITAL SYSTEM AND STATE-OF-THE ART SENSORS AND SUBSYSTEMS. NEW SYSTEM IS REQUIRED TO MEET THE STRATEGIC BOMBER MISSION REQUIREMENTS AND TO INTERFACE WITH THE INTRODUCTION OF CRUISE MISSILES ON THE B-52.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	161	881.7	64	313.6	41	173.8					266	1369.1
BASIS FOR COST ESTIMATE:												
NONRECURRING		95.1		45.6		23.4						164.1
KITS	161	529.3	64	220.5	41	143.1					266	892.9
DATA		68.4		12.3		.3						81.0
TRAINER		59.3		4.8								64.1
SUPPORT EQUIP.		119.9		30.4		7.0						157.3
TOOLING		9.7										9.7
TOTAL	161	881.7	64	313.6	41	173.8					266	1369.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/PDM
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALCM-CARRIER AIRCRAFT, MN-3022

MODELS OF AIRCRAFT AFFECTED: B-52G/H

DESCRIPTION/JUSTIFICATION. PROVIDES THE B-52G/H AIRCRAFT WITH THE CAPABILITY TO CARRY AND LAUNCH THE AIR LAUNCHED CRUISE MISSILE. PROVIDES FOR EXTERNAL CARRIAGE FOR 105 B-52G AIRCRAFT AND EXTERNAL CARRIAGE BEGINNING IN FY 1983 FOR 36 B-52H AIRCRAFT. FUNDING FOR INTERNAL MODIFICATION IS SEPARATELY IDENTIFIED.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	105	294.0	41	118.8	27	65.0	28	105.8			201	583.6
BASIS FOR COST ESTIMATE:												
NONRECURRING		19.1		3.9		5.2		15.4				43.6
KITS	105	86.2	41	29.8	27	21.8	28	25.5			201	163.3
DATA		12.0		2.4		11.0		14.0				39.4
TRAINER		1.3		13.0								11.3
SUPPORT EQUIP.		31.9		24.7				5.9				62.5
TOOLING		37.0										37.0
PYLON		106.5		48.0		27.0		45.0				226.5
TOTAL	105	294.0	41	118.8	27	65.0	28	105.8			201	583.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/PDM
LEAD TIME - 26 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AFSATCOM TERMINAL UPGRADE/DUAL MODEM MOD

MODELS OF AIRCRAFT AFFECTED: B-52

DESCRIPTION/JUSTIFICATION: AFSATCOM TERMINAL DUAL MODEM MODIFICATION REQUIRED TO TRANSITION THESE TERMINALS TO MILSTAR, RESOLVE A POTENTIALLY HIGH FREQUENCY INTERFERENCE PROBLEM, CORRECT POT&E DEFICIENCIES AND TO PROVIDE PROPER FREQUENCY-HOPPING ALGORITHM FOR COMPATIBILITY WITH CHANGES BEING MADE TO THE AFSATCOM TRANSPONDER ON THE SDS SPACECRAFT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							266	14.7			266	14.7
BASIS FOR COST ESTIMATE:												
NONRECURRING								4.8				4.8
KITS							266	9.0			266	9.0
DATA								.1				.1
SUPPORT EQUIP.								.8				.8
TOTAL							266	14.7			266	14.7

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 11 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALCM-CARRIER (INTERNAL)

MODELS OF AIRCRAFT AFFECTED: B-52H

DESCRIPTION/JUSTIFICATION: (U) MODIFIES 90 B-52H AIRCRAFT WITH PROVISIONS FOR INTERNAL AIR LAUNCHED CRUISE MISSILE (ALCM) CARRIAGE AND PROCURES THE COMMON STRATEGIC ROTARY LAUNCHER (CSRL) FOR INTERNAL CARRIAGE OF ALCM, SRAM, AND GRAVITY WEAPONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					15	145.0	22	157.9	59	331.0	96	633.9
BASIS FOR COST ESTIMATE:												
NONRECURRING						7.8						7.8
KITS					15	72.5	22	96.8	59	253.8	96	423.1
DATA						10.0		12.0		22.2		44.2
SUPPORT EQUIP.						9.0		39.4		32.8		81.2
TOOLING						36.5						36.5
ECO						9.2		9.7		22.2		41.1
TOTAL					15	145.0	22	157.9	59	331.0	96	633.9

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALQ-172 ECM

MODELS OF AIRCRAFT AFFECTED: B-52H

DESCRIPTION/JUSTIFICATION: IMPROVES CAPABILITY TO PROVIDE DEFENSE AGAINST EXISTING AND PROJECTED AIRBORNE INTERCEPTOR THREATS. PROVIDES ADVANCED ECM TECHNIQUES, SOFTWARE REPROGRAMMABILITY, AND INCREASED POWER.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					2	54.3	18	104.7	76	338.0	96	497.0
BASIS FOR COST ESTIMATE:												
NONRECURRING						5.4						5.4
KITS					2	9.0	18	79.5	76	338.0	96	426.5
DATA						4.9		5.5				10.4
TRAINER						4.8		5.3				10.1
SUPPORT EQUIP.						15.9		14.4				30.3
TOOLING						7.8						7.8
MOD OF SPARES						6.5						6.5
						-----		-----				-----
TOTAL					2	54.3	18	104.7	76	338.0	96	497.0

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: B-52G PAVE MINT

MODELS OF AIRCRAFT AFFECTED: B-52J

DESCRIPTION/JUSTIFICATION: PROVIDES AN UPDATE TO THE ALQ-117 ELECTRONIC COUNTERMEASURES SET FOR THE 105 ALCM-CARRYING B-52G AIRCRAFT TO COUNTER AIRBORNE AND GROUND BASED FIRE CONTROL AND MISSILE RADARS.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
				6.0		36	94.8	31	97.0	67	197.8

BASIS FOR COST ESTIMATE:

NONRECURRING				1.4							1.4
KITS						36	94.8	31	97.0	67	191.8
DATA				2.3							2.3
SUPPORT EQUIP.				2.3							2.3
	---	---	---	---	---	---	---	---	---	---	---
TOTAL				6.0		36	94.8	31	97.0	67	197.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 15 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: EMP HARDENING

MODELS OF AIRCRAFT AFFECTED: B-52

DESCRIPTION/JUSTIFICATION: HARDENS SELECTED MISSION-CRITICAL SYSTEMS ON THE B-52G/H AGAINST THE EFFECTS OF ELECTROMAGNETIC PULSE (EMP). REPLACES PIECE PARTS IN SELECTED LIVE REPLACEABLE UNITS WITH HARDENED COMPONENTS. ADDS HARDENED CABLES AND TERMINAL PROTECTION DEVICES TO PREVENT EMP INTRUSION INTO AIRCRAFT SYSTEMS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	----	-----	----	-----	----	-----	----	-----	----	-----	-----	-----
					15	12.0	63	22.0	188	114.7	266	148.7
BASIS FOR COST ESTIMATE:												
NONRECURRING						3.0						3.0
KITS					15	3.5	63	15.2	188	114.7	266	133.4
DATA						2.5		2.3				4.8
SUPPORT EQUIP.						3.0		4.5				7.5
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL					15	12.0	63	22.0	188	114.7	266	148.7

**METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS**

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HARPOON INTEGRATION

MODELS OF AIRCRAFT AFFECTED: B-52G/H

DESCRIPTION/JUSTIFICATION: PROVIDES AN ANTI-SHIP CAPABILITY ON 30 B-52G AIRCRAFT THROUGH PROVISIONS FOR EXTERNAL CARRIAGE OF HARPOON MISSILES.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	----	---	----	---	----	---	----	---	----	-----	-----
		3	3.5	27	15.4					30	18.9

BASIS FOR COST ESTIMATE:

NONRECURRING			1.9								1.9
KITS		3	1.6	27	12.1					30	13.7
DATA					1.3						1.3
SUPPORT EQUIP.					2.0						2.0

TOTAL		3	3.5	27	15.4					30	18.9

**METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT FIELD TEAM
LEAD TIME - 9 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ENVIRONMENTAL CONTROL SYSTEM, HW-11402B

MODELS OF AIRCRAFT AFFECTED: B-52G/H

DESCRIPTION/JUSTIFICATION: UPGRADES THE EXISTING UNRELIABLE AND COSTLY ENVIRONMENTAL CONTROL SYSTEM WITH A NEW TECHNOLOGY, HIGHLY RELIABLE SYSTEM. THE PRESENT SYSTEM IS VERY TROUBLESOME AND WILL BECOME UNSUPPORTABLE IN THE NEAR-TERM. THIS MOD WILL PROVIDE UPGRADED BLEED AIR TEMPERATURE REGULATION, ZONE TEMPERATURE CONTROL/CABIN AIR DISTRIBUTION. CONSISTS OF PNEUMATIC SYSTEMS PRECOOLER CONTROL SYSTEM UPDATE AND NEW ENVIRONMENTAL CONTROL UNIT (ECU). CONFIGURATION UPDATE TO ALLOW DELETION OF ODS/FRODS ON THE B-52H ALCH CARRIERS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	1	19.1	34	34.5	63	32.6	62	29.3	106	52.3	266	167.8
BASIS FOR COST ESTIMATE:												
NONRECURRING		16.1		7.4								23.5
KITS	1	2.4	34	23.1	63	31.8	62	29.2	106	52.2	266	138.7
DATA		.6		1.2		.1		.1		.1		2.1
TRAINER				.2		.7						.9
SUPPORT EQUIP.				2.6								2.6
TOTAL	1	19.1	34	34.5	63	32.6	62	29.3	106	52.3	266	167.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RADAR UPGRADE, MN-11408B

MODELS OF AIRCRAFT AFFECTED: B-52 G/4

DESCRIPTION/JUSTIFICATION: WILL UPGRADE EXISTING RADAR BY REPLACING OUTDATED, UNRELIABLE ITEMS WITH SOLID-STATE COMPONENTS. AN INTERIM ANTENNA MODIFICATION AND SPECIAL SUPPORT ACTIONS ARE REQUIRED TO ASSURE RADAR SUPPORT BEYOND FY 85. MODIFICATION IS DRIVEN BY R&M/SUPPORT REQUIREMENTS; SOME ACCURACY AND RESOLUTION IMPROVEMENTS WILL ACCRUE DUE TO UPDATED COMPONENTS.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
				2	65.5	57	126.2	207	279.0	266	470.7

BASIS FOR COST ESTIMATE:

NONRECURRING				28.6		11.1					39.7
KITS				2	6.0	57	75.7	207	231.2	266	312.9
DATA					16.6		19.0		15.7		51.3
SUPPORT EQUIP.					9.6		14.7		10.1		34.4
TOOLING					4.7						4.7
SIMULATORS							5.7		22.0		27.7
				---	---	---	---	---	---	---	---
TOTAL				2	65.5	57	126.2	207	279.0	266	470.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 20 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RADAR ANTENNA UPGRADE, MN-12002B

MODELS OF AIRCRAFT AFFECTED: H-52G/1

DESCRIPTION/JUSTIFICATION: THE RADAR ANTENNA IS PROJECTED TO BE UNSUPPORTABLE BY FY 85. THIS MOD REPLACES HIGH FAILURE ANTENNA COMPONENTS AND PROVIDES A LINEAR 'K' CAPABILITY TO IMPROVE MISSION SUCCESS RATES. THE ANTENNA MOD WILL PRECEED AND BE COMPATIBLE WITH THE OVERALL RADAR UPGRADE MODIFICATION SCHEDULED FOR INITIATION AFTER COMPLETION OF DEVELOPMENT IN FY 84.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:			180	11.1	86	4.1					266	15.2
KITS			180	10.3	86	4.1					266	14.4
DATA				.8								.8
TOTAL			180	11.1	86	4.1					266	15.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/DEPOT TEAM(3)
LEAD TIME - 21 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MODERNIZE DEFENSIVE FIRE CONTROL, MN-12613B

MODELS OF AIRCRAFT AFFECTED: B-52G

DESCRIPTION/JUSTIFICATION: THE FAILURE RATE OF THE ASG-15 FIRE CONTROL SYSTEM IS INCREASING RAPIDLY AS WELL AS THE CONDEMNATION RATE OF THE COMPONENTS. THIS MODIFICATION WILL REDUCE THE NUMBER OF LINE REPLACEABLE UNITS, UPDATE THE SYSTEM TO CURRENT TECHNOLOGY, AND PROVIDE LOGISTICALLY SUPPORTABLE SYSTEMS. MODIFICATION WILL IMPROVE THE FIRE-OUT RATE FROM 50% TO 80% AND INCREASE THE MTBF FROM THE PRESENT 6 HOURS TO AN ESTIMATED 100 HOURS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
				2.0		13.0	86	44.2	84	41.1	170	100.3
BASIS FOR COST ESTIMATE:												
NONRECURRING				2.0		13.0						15.0
KITS							86	38.0	84	38.2	170	76.2
DATA								1.5		1.6		3.1
TRAINER								2.0				2.0
SUPPORT EQUIP.								2.7		1.3		4.0
TOTAL				2.0		13.0	86	44.2	84	41.1	170	100.3

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AUTOMATIC FLIGHT CONTROL UPDATE, MN-184208

MODELS OF AIRCRAFT AFFECTED: B-52G/A

DESCRIPTION/JUSTIFICATION: PRESENT AUTOPILOT IS BECOMING UNSUPPORTABLE AND IS SUBJECT TO UNSCHEDULED PITCH-UP/DOWN IN LOW-LEVEL AND AERIAL REFUELING MODES, ROLL WALLOW, AND YAW OSCILLATIONS. MODIFICATION REPLACES ALTITUDE AND PARAMETER CONTROLS, MAIN AMPLIFIER, SERVO CONTROL AND STEERING COUPLER WITH A SOLID STATE LRU. MODIFICATION WILL IMPROVE CURRENT 19 HOUR MEAN TIME BETWEEN MAINTENANCE ACTIONS TO 100 HOURS.

SCOPE OF PROGRAM:

PRIOR	FY-83	FY-84	FY-85	OUTYEAR	T O T A L	
QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY	COST
			50 14.5	216 49.7	266	64.2

BASIS FOR COST ESTIMATE:

NONRECURRING				2.5		2.5
KITS			50	8.3	216	51.2
DATA				2.5		4.7
SUPPORT EQUIP.				1.2		3.5
SIMULATORS						2.3
TOTAL			50	14.5	216	64.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: FUEL QUANTITY INDICATING SYSTEM, MN-18421B

MODELS OF AIRCRAFT AFFECTED: B-52G/H

DESCRIPTION/JUSTIFICATION: REPLACES THE FUEL QUANTITY INDICATORS WITH SOLID STATE UNITS; REPLACES THE PROBES WITH FULL HEIGHT COMPENSATED TANK UNITS; AND, REPLACES ALL FUEL QUANTITY SYSTEM WIRING. THE PROBES AND WIRING HAVE SERIOUSLY DETERIORATED AND WILL BE UNSUPPORTABLE IN THE NEAR TERM. EXCESSIVE MAINTENANCE COSTS ARE BEING INCURRED IN REPAIRING THE EXISTING SYSTEM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	38	10.9	62	6.5	63	5.3	62	5.8	41	4.1	266	32.6
BASIS FOR COST ESTIMATE:												
NONRECURRING		3.9										3.9
KITS	38	3.5	62	4.8	63	5.1	62	5.6	41	4.0	266	23.0
DATA		1.4		.3		.2		.2		.1		2.2
TRAINER		.3		.2								.5
SUPPORT EQUIP.		1.8		1.2								3.0
TOTAL	38	10.9	62	6.5	63	5.3	62	5.8	41	4.1	266	32.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 20 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: EVS FLIR DIGITAL SIGNAL PROCESSOR, MN-42005B

MODELS OF AIRCRAFT AFFECTED: B-52G/H

DESCRIPTION/JUSTIFICATION: REPLACES EXISTING FLIR SIGNAL PROCESSOR WITH A DIGITAL PROCESSOR.
MODIFICATION IS ESSENTIAL TO IMPROVE RELIABILITY FOR TERRAIN AVOIDANCE MISSIONS. RELIABILITY
WILL IMPROVE FROM PRESENT 200 HOURS TO 3700 HOURS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					2	13.5	132	12.2	132	11.3	266	37.0
BASIS FOR COST ESTIMATE:												
NONRECURRING						6.6						6.6
KITS					2	.2	132	10.2	132	11.0	266	21.4
DATA						1.5		1.1		.3		2.9
SUPPORT EQUIP.						2.0		.9				2.9
TOOLING						.5						.5
SIMULATORS						2.7						2.7
TOTAL					2	13.5	132	12.2	132	11.3	266	37.0

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 28 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AFSATCOM TERMINAL UPGRADE

MODELS OF AIRCRAFT AFFECTED: FB-111

DESCRIPTION/JUSTIFICATION: COMMAND POS. (CP) UPGRADE MODIFICATION WILL PROVIDE NEW PROCESSORS AND
MODEMS, REPLACE THE HIGH POWER AMPLIFIER, AND INSTALL THE KI-35 TRANSMISSION SECURITY DEVICE.
REQUIRED FOR IMPROVED PERFORMANCE IN A JAMMING ENVIRONMENT, OPERATION WITH THE DSCS SINGLE
CHANNEL TRANSPONDER, AND FOR COMPATIBILITY WITH MILSTAR.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
							65	3.4			65	3.4
BASIS FOR COST ESTIMATE:												
NONRECURRING							1	.5			1	.5
KITS							64	2.8			64	2.8
DATA								.1				.1
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL							65	3.4			65	3.4

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MONO-PULSE COUNTER MEASURES

MODELS OF AIRCRAFT AFFECTED: FB-111

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION UPGRADES AND AUGMENTS THE CURRENT FB-111A SYSTEM TO COUNTER A NEW GENERATION OF MONO-PULSE THREATS. IMPROVEMENTS WILL PROVIDE INCREASED THREAT RECOGNITION AND APPROPRIATE COUNTER MEASURES TO COMBAT THE NEW/MODIFIED THREATS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
							5	3.0	40	12.6	45	15.6
BASIS FOR COST ESTIMATE:												
KITS							5	2.0	40	12.6	45	14.6
DATA								.5				.5
SUPPORT EQUIP.								.5				.5
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL							5	3.0	40	12.6	45	15.6

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: F-41 HOT SECTION, MN-114078

MODELS OF AIRCRAFT AFFECTED: A-7D/TF-41 ENGINE

DESCRIPTION/JUSTIFICATION: THE TF-41 HAS HAD SERIOUS PROBLEMS WITH FAILURES IN THE HOT SECTION, IN MANY CASES DIRECTLY RELATED TO THE SECOND-STAGE HIGH PRESSURE TURBINE BLADE. NUMEROUS FAILURES HAVE RESULTED IN A SAFETY-OF-FLIGHT PROBLEM AND GROUNDING OF AIRCRAFT WHILE THE ENGINE WAS FORCED INTO THE OVERHAUL LINE. THIS MODIFICATION PROVIDES A LONG TERM CORRECTION FOR THE HIGH PRESSURE TURBINE FAILURES BY REDESIGNING HPT-1 AND HPT-2 BLADES AND INTRODUCES A THREE-CHANNEL HPT-1 WHEEL.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	80	16.4	120	21.0	180	35.3	180	37.0	19	7.7	579	117.4
BASIS FOR COST ESTIMATE:												
KITS	71	12.1	108	13.8	168	32.9	163	33.5	19	7.7	529	105.0
SUPPORT EQUIP.		.4										.4
TOOLING		2.4										2.4
MOD OF SPARES	9	1.5	12	2.2	12	2.4	17	3.5			50	9.6
TOTAL	80	16.4	120	21.0	180	35.3	180	37.0	19	7.7	579	117.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 33 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: DIGITAL SCAN CONVERTER, MN-11602B

MODELS OF AIRCRAFT AFFECTED: A-7D

DESCRIPTION/JUSTIFICATION: MODIFICATION WILL REPLACE TWO LINE REPLACEABLE UNITS (LRU) WITH THE DIGITAL SCAN CONVERTER. THE AN/APQ-126 RADAR DISPLAY SUB-GROUP INSTALLED IN A-7D AIRCRAFT IS EXPERIENCING A LOW MEAN TIME BETWEEN FAILURE (MTBF) RELIABILITY OF 80 HOURS. THE COMBINED MTBF OF THE PROPOSED DIGITAL SCAN CONVERTER GROUP IS 500 HOURS BASED ON MORE THAN TWO YEARS OF FLYING IN AN OPERATIONAL ENVIRONMENT.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
177	26.7	97	15.5	85	10.4					359	52.6

BASIS FOR COST ESTIMATE:

NONRECURRING	1	3.4								1	3.4
KITS	176	17.8	97	11.4	85	10.4				358	39.6
DATA		1.8									1.8
TRAINER		1.2									1.2
SUPPORT EQUIP.		2.5		4.1							6.6
TOTAL	177	26.7	97	15.5	85	10.4				359	52.6

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: NOSE WHEEL STEERING, MN-40056A

MODELS OF AIRCRAFT AFFECTED: A-7 D/K

DESCRIPTION/JUSTIFICATION: CURRENT DESIGN ALLOWS ELECTRICAL FAILURES TO RESULT IN HAZARDOUS STEERING HARDOVERS. MODIFICATION INCORPORATES A FAILURE MONITORING CIRCUIT WHICH WILL ALLOW THE NOSE WHEEL TO FREE CASTER IMMEDIATELY IN THE EVENT OF ELECTRICAL MALFUNCTION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					247	4.6	112	1.3			359	5.9
BASIS FOR COST ESTIMATE:												
NONRECURRING						1.1						1.1
KITS					247	2.4	112	1.3			359	3.7
DATA						.6						.6
SUPPORT EQUIP.						.4						.4
SIMULATORS						.1						.1
TOTAL					247	4.6	112	1.3			359	5.9

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: INERTIAL NAVIGATION SYSTEM (INS), MN-3048

MODELS OF AIRCRAFT AFFECTED: A-10

DESCRIPTION/JUSTIFICATION: INS WILL PROVIDE AN AUTONOMOUS NAVIGATION CAPABILITY FOR COMBAT DESIGNATED AIRCRAFT. LOW LEVEL TACTICS IMPOSED BY COMBAT ENVIRONMENT PRECLUDES RELIANCE ON EXTERNAL NAVIGATIONAL AIDS. EUROPEAN TERRAIN AND WEATHER DICTATE AUTONOMOUS CAPABILITY IN TACTICAL SITUATIONS. A-10 NAVIGATION REQUIREMENT DOCUMENTED IN OPERATIONAL EVALUATIONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	134	57.4	100	59.8	84	54.5					318	171.7
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	3.5									1	3.5
KITS	133	51.4	100	59.8	84	54.5					317	165.7
DATA		.5										.5
TRAINER		2.0										2.0
TOTAL	134	57.4	100	59.8	84	54.5					318	171.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: OUTER WING FATIGUE RESKIN, MN-103388

MODELS OF AIRCRAFT AFFECTED: A-10A

DESCRIPTION/JUSTIFICATION: DURING ACCELERATED TESTING TO DETERMINE FATIGUE LIMITS OF THE AIRFRAME, A MAJOR FAILURE OCCURRED ON THE LEFT TEST WING. THE LOWER SKIN, 25 INCHES OUT-BOARD OF THE LANDING GEAR POD, COMPLETELY FAILED FROM THE FRONT SPAR TO THE REAR SPAR, ALONG WITH ALL THREE LOWER SPAR CAPS AND THE UPPER FRONT SPAR CAP. THE INCIDENT OCCURRED DURING AN EXTENDED TEST PROGRAM TO 2.3 LIFETIMES (13,800 HRS).

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	139	15.6					35	2.5	240	22.1	414	40.2
BASIS FOR COST ESTIMATE:												
NONRECURRING	2	1.4									2	1.4
KITS	137	9.8					35	2.5	240	22.1	412	34.4
DATA		.2										.2
TOOLING		4.2										4.2
TOTAL	139	15.6					35	2.5	240	22.1	414	40.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: STABILITY AUGMENTATION SYSTEM (SAS), MN-103418

MODELS OF AIRCRAFT AFFECTED: A-10A

DESCRIPTION/JUSTIFICATION: WITH THE EARLY PRODUCTION STABILITY AUGMENTATION SYSTEM (SAS), IT IS EXTREMELY DIFFICULT TO MAKE ACCURATE AZIMUTH CORRECTIONS DURING WEAPONS DELIVERY. SLOW, SMOOTH INPUTS HELP TO ALLEVIATE THIS PROBLEM, BUT THIS REQUIRES LONGER TARGET TRACKING TIMES WHICH ADVERSELY IMPACT SURVIVABILITY UNDER COMBAT CONDITIONS. AN IMPROVEMENT TO THE EARLY SAS DESIGN WAS INCORPORATED INTO PRODUCTION. THIS MODIFICATION WILL RETROFIT THE NEW SAS INTO THE OLDER AIRFRAMES.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
				67	5.3	121	6.7			188	12.0

BASIS FOR COST ESTIMATE:

NONRECURRING				1	.5					1	.5
KITS				66	3.6	121	6.7			187	10.3
DATA					.2						.2
TRAINER					.1						.1
SUPPORT EQUIP.					.9						.9
TOTAL				67	5.3	121	6.7			188	12.0

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 4 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: FLIGHT CONTROL CLEARANCE IMPROVEMENT, MN-10342A

MODELS OF AIRCRAFT AFFECTED: A-10A

DESCRIPTION/JUSTIFICATION: THROUGHOUT THE FUSELAGE OF EARLY PRODUCTION MODEL A-10'S, NUMEROUS FLIGHT CONTROLS HAVE CLEARANCES LESS THAN ONE-QUARTER OF AN INCH, AND MANY CONTROL ROD CONNECTORS HAVE CONDITIONS THAT VIOLATE FAIL SAFE PROCEDURES WHICH COULD CAUSE LOSS OF CONTROL, AND POSSIBLE LOSS OF AIRCRAFT. THE MODIFICATION WILL INVOLVE INCREASING FLIGHT CONTROL CLEARANCES AND INSURING FAIL SAFE BOLT INSTALLATION AS ACCOMPLISHED ON THE PRODUCTION LINE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
			136	2.7	180	2.4	157	2.3	54	.8	527	8.2
BASIS FOR COST ESTIMATE:												
NONRECURRING			1	.6							1	.6
KITS			135	1.8	180	2.4	157	2.3	54	.8	526	7.3
DATA				.1								.1
SIMULATORS				.2								.2
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL			136	2.7	180	2.4	157	2.3	54	.8	527	8.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CORRECT ALR 69 DEFICIENCIES, MN-10349C

MODELS OF AIRCRAFT AFFECTED: A-10

DESCRIPTION/JUSTIFICATION: THE ALR-69 RADAR WARNING SYSTEM INSTALLED IN THE EARLY A-10S HAS NUMEROUS OPERATIONAL PERFORMANCE DEFICIENCIES WHICH SERIOUSLY DEGRADE THE SURVIVABILITY OF THE A-10 IN A COMBAT ENVIRONMENT. SEVERAL IMPROVEMENTS TO BOTH THE AIRCRAFT AND THE RADAR WARNING RECEIVER WHICH HAVE BEEN INCORPORATED INTO PRODUCTION WILL RESOLVE THESE DEFICIENCIES.

SCOPE OF PROGRAM:

PRICE		FY-83		FY-84		FY-85		OUTYFAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	----	---	----	---	----	---	----	---	----	---	----
		91	5.6	191	7.7	245	10.9			527	24.2

BASIS FOR COST ESTIMATE:

NONRECURRING		1	.9							1	.9
KITS		90	3.6	191	7.7	245	10.9			526	22.2
DATA			.2								.2
TRAINER			.9								.9
		---	----	---	----	---	----	---	----	---	----
TOTAL		91	5.6	191	7.7	245	10.9			527	24.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: TURBINE ENGINE MONITORING SYSTEM, MN-113088

MODELS OF AIRCRAFT AFFECTED: A-10

DESCRIPTION/JUSTIFICATION: THE TURBINE ENGINE MONITORING SYSTEM SELECTIVELY MONITORS ENGINE PERFORMANCE WHICH IS ULTIMATELY USED TO DETERMINE OUT OF TOLERANCE CONDITIONS. ANTICIPATED BENEFITS INCLUDE INCREASED AVAILABILITY AND MAINTENANCE EFFICIENCY, INCREASED DATA HANDLING EFFICIENCY, REDUCED LOGISTICS SUPPORT COST, AND IMPROVED ENGINE MANAGEMENT. THE T-38 ENGINE HEALTH MONITORING SYSTEM WAS SERVICE TESTED ON THE T-38 AND IS BEING ADAPTED FOR A-10 USAGE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	23	3.3			150	23.6	200	21.5	272	35.9	645	84.3
BASIS FOR COST ESTIMATE:												
NONRECURRING						1.6						1.6
KITS	23	3.3			150	20.0	200	21.5	272	35.9	645	80.7
SUPPORT EQUIP.						2.0						2.0
TOTAL	23	3.3			150	23.6	200	21.5	272	35.9	645	84.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: FUEL FOAM FIRES, MN-11316A

MODELS OF AIRCRAFT AFFECTED: A-10A

DESCRIPTION/JUSTIFICATION: FUEL FOAM CHARRING INCIDENTS HAVE BEEN EXPERIENCED. TESTS HAVE INDICATED THE NEED FOR FLAME ARRESTERS IN ALL FUEL VENT LINES. THIS WILL STOP THE PROPAGATION OF A FLAME FRONT INTO THE FUEL TANKS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			208	4.0	350	2.7	103	.8			661	7.5
BASIS FOR COST ESTIMATE:												
NONRECURRING				2.4								2.4
KITS			208	1.1	350	2.7	103	.8			661	4.6
DATA				.5								.5
TOTAL			208	4.0	350	2.7	103	.8			661	7.5

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 7 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: TF-34 HOT SECTION, MN-12204B

MODELS OF AIRCRAFT AFFECTED: A-10

DESCRIPTION/JUSTIFICATION: THE ENGINE HOT SECTION, HISTORICALLY HAS BEEN THE PRIMARY CAUSE OF ENGINE MAINTENANCE. CURRENTLY, THE HOT SECTION LIFE IS LIMITED BY THE HIGH PRESSURE (HP) STAGE 1 TURBINE BLADE WHICH MUST BE REPLACED AFTER 180 HOURS OPERATING TIME AT MAXIMUM POWER (TAMP). TAMP MAINTENANCE REPRESENTS 30-40% OF THE TOTAL ENGINE CAUSED SHOP VISITS TODAY AND WILL GROW TO APPROXIMATELY 50% OVER THE NEXT FIVE YEARS. TAMP MAINTENANCE REPRESENTS AN EVER GREATER PERCENTAGE OF SPARE PARTS COST AND MAINTENANCE MAN HOURS. IMPROVED DURABILITY OF THE HOT SECTION, THEREFORE, IS THE KEY TO ACHIEVING OVERALL MAINTENANCE COST SAVINGS. THE HOT SECTION LIFE IMPROVEMENT PROGRAM WILL IMPROVE FIELD SUPPORTABILITY IN SEVERAL WAYS. EXTENSION OF THE TAMP INTERVAL WILL SIGNIFICANTLY REDUCE SCHEDULED ENGINE MAINTENANCE AND THE IMPROVED HOT SECTION WILL ALSO REDUCE UNSCHEDULED ENGINE REMOVALS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
					48	8.0	300	29.0	1272	120.9	1620	157.9
BASIS FOR COST ESTIMATE:												
KITS					48	3.9	300	28.0	1272	120.9	1620	152.8
DATA								.1				.1
TOOLING						4.1		.9				5.0
	---	----	---	----	---	----	---	----	---	----	-----	-----
TOTAL					48	8.0	300	29.0	1272	120.9	1620	157.9

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 7 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: NUMBER ONE CARBON SEAL, MM-21109A

MODELS OF AIRCRAFT AFFECTED: A-10

DESCRIPTION/JUSTIFICATION: FAILURE OF NO. 1 BEARING/BEARING HOUSING RESULTS IN AFT MOVEMENT OF THE ENGINE FAN ROTOR ASSEMBLY. THE PROPOSED REDESIGN WILL ELIMINATE FAN ROTOR DISK AND SEAL CONTACT AND WILL THEREBY PREVENT IN-FLIGHT FAN ROTOR ASSEMBLY SEPARATION FROM THE ENGINE. THIS CHANGE IS REQUIRED TO PREVENT POTENTIAL LOSS OF AIRCRAFT AND CREW.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:			50	.6	600	4.4	600	4.7	335	2.8	1585	12.5
KITS			50	.5	600	4.4	600	4.7	335	2.8	1585	12.4
TOOLING				.1								.1
TOTAL			50	.6	600	4.4	600	4.7	335	2.8	1585	12.5

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 26 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: PANEL RED&SIGN, MM-31071A

MODELS OF AIRCRAFT AFFECTED: A-10A

DESCRIPTION/JUSTIFICATION: CORROSION AND PANEL BUCKLING HAS CAUSED FASTENERS TO PULL THROUGH ACCESS PANELS. THIS CONDITION LEADS TO ENGINE FOREIGN OBJECT DAMAGE (FOD) POTENTIAL AND WATER INTRUSION INTO ELECTRONIC COMPONENTS. PANELS WERE REDESIGNED AND INCORPORATED INTO PRODUCTION AIRCRAFT 333 AND ABOVE. THE EARLIER CONFIGURED DOORS WILL NOW BE REPLACED WITH THE LATEST CONFIGURATION.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
				131	10.9	120	10.4	82	7.0	333	28.3

BASIS FOR COST ESTIMATE:

NONRECURRING				1	.1					1	.1
KITS				130	10.7	120	10.4	82	7.0	332	28.1
DATA					.1						.1
				---	---	---	---	---	---	---	---
TOTAL				131	10.9	120	10.4	82	7.0	333	28.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 10 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SEQUENCER SWITCH CORROSION FIX, MM-610698

MODELS OF AIRCRAFT AFFECTED: A-10

DESCRIPTION/JUSTIFICATION: THE AN/ALE-40 CHAFF/FLARE DISPENSER HAS DEVELOPED CORROSION PROBLEMS, THE CORROSION CAUSES COMPONENT BREAK DOWN AND EQUIPMENT FAILURE. THIS REDUCES AIRCRAFT PROTECTION THUS AFFECTING MISSION CAPABILITIES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			37	.9	346	4.3	346	4.5			729	9.7
BASIS FOR COST ESTIMATE:												
NONRECURRING			1	.2							1	.2
KITS			30	.6	346	4.3	346	4.5			728	9.4
DATA				.1								.1
TOTAL			37	.9	346	4.3	346	4.5			729	9.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/DFT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: VINSON TAC SECURE VOICE, MN-3025

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: VINSON SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF VHF/UHF AM/FM RADIOS FOR CLASSIFICATION OF TRAFFIC. THE ENCRYPTION DEVICE IS DESIGNED FOR OPERATION IN AIRCRAFT INSTRUMENT PANELS OR RADIO-CONSOLE CONTROL PANELS, OR IT MAY BE LOCATED IN EQUIPMENT BAYS AND OPERATED BY A REMOTE CONTROL UNIT (RCU).

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	307	5.9	256	3.3	329	5.2	288	6.2	163	1.6	1343	22.2
BASIS FOR COST ESTIMATE:												
NONRECURRING	5	1.4									5	1.4
KITS	302	3.0	256	3.3	329	4.2	288	4.2	163	1.6	1338	16.3
DATA		1.5										1.5
TRAINER						1.0		2.0				3.0
TOTAL	307	5.9	256	3.3	329	5.2	288	6.2	163	1.6	1343	22.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: PARKHILL TAC SECURE VOICE, MN-3063

MODELS OF AIRCRAFT AFFECTED: RF-4

DESCRIPTION/JUSTIFICATION: PARKHILL SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF HF NARROW BAND FREQUENCY RANGES UP TO THE SECRET LEVEL. THE TSEC/KY-75 IS DESIGNED FOR OPERATION IN ALL AIRCRAFT APPLICATIONS.

SCOPE OF PROGRAM:

	PRIO.		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	42	5.1	68	1.8	86	4.1	75	2.3	55	2.5	326	15.8
NONRECURRING	1	2.4									1	2.4
KITS	41	.9	68	1.8	86	2.5	75	2.3	55	2.0	325	9.5
DATA		1.6								.5		2.3
TRAINER						1.6						1.6
TOTAL	42	5.1	68	1.8	86	4.1	75	2.3	55	2.5	326	15.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALR-74 RWR UPDATE, MN-3088

MODELS OF AIRCRAFT AFFECTED: F-4E

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION WILL REPLACE THE CURRENT ALR-46 RADAR WARNING RECEIVER WITH THE ALR-74. THIS UPDATE WILL ALLOW THE F-4E TO OPERATE IN THE PROJECTED 1985-90 THREAT ENVIRONMENT. INSTALLATION OF THIS SYSTEM REQUIRES A LIMITED CHANGE TO THE AIRFRAME.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	8.5		50	46.6	110	64.0	180	63.1	111	48.2	451	230.4

BASIS FOR COST ESTIMATE:

NONRECURRING	8.5											8.5
KITS			50	16.9	110	37.0	180	63.1	111	48.2	451	165.2
DATA				5.0		1.5						6.5
TRAINER						11.6						11.6
SUPPORT EQUIP.				16.7		13.9						30.6
TOOLING				8.0								8.0
TOTAL	8.5		50	46.6	110	64.0	180	63.1	111	48.2	451	230.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: LOW-SMOKE ENGINES, MN-3107

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: IMPROVES AIRCRAFT EFFECTIVENESS AND SURVIVABILITY BY MODIFYING J-79 ENGINES TO THE LOW SMOKE CONFIGURATION, INCLUDES SMOKELESS COMBUSTOR AND MODIFICATIONS TO LINER, FUEL NOZZLE, HIGH ENERGY IGNITION AND COMPRESSOR REAR FRAME.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	360	15.3	428	20.6	575	30.9	500	30.0	749	49.2	2612	146.0
BASIS FOR COST ESTIMATE:												
NONRECURRING		.5										.5
KITS	360	14.6	428	20.6	575	30.9	500	30.0	749	49.2	2612	145.3
DATA		.2										.2
TOTAL	360	15.3	428	20.6	575	30.9	500	30.0	749	49.2	2612	146.0

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MARK XII IFF IMPROVEMENTS, MN-3112

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: ELECTRONIC COUNTER MEASURE TESTING HAS IDENTIFIED SEVERAL SERIOUS DEFICIENCIES WITH THE AN/APX 76 AND KY-532 INTERROGATORS AND TRANSPONDERS INSTALLED IN THE F-4 AIRCRAFT. THIS MODIFICATION IS NEEDED TO CORRECT THESE DEFICIENCIES AND IMPROVE THE PERFORMANCE OF THIS EQUIPMENT IN AN ECM ENVIRONMENT.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
				650	2.6	906	2.7			1556	5.3

BASIS FOR COST ESTIMATE:

NONRECURRING					.5						.5
KITS				650	2.0	906	2.7			1556	4.7
DATA					.1						.1
				---	---	---	---	---	---	---	---
TOTAL				650	2.6	906	2.7			1556	5.3

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR/FIELD TEAM
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HARM INTEGRATION

MODELS OF AIRCRAFT AFFECTED: F-4G

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES FOR THE INTEGRATION OF THE AGM-88 HIGH SPEED ANTI RADIATION MISSILE (HARM) ON THE F-4G AIRCRAFT. THE PROGRAM CONSISTS OF ACQUISITION AND INSTALLATION OF PYLON CABLES, LAUNCHERS ATTACH POINT BRACKETS, SUPPORT EQUIPMENT AND UPDATE OF THE F-4G WEAPON SYSTEM TRAINERS. EACH AIRCRAFT WILL HAVE THE CAPABILITY OF CARRYING 4 AGM-88 HARM MISSILES

SCOPE OF PROGRAM:

	PRICE		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			53	5.3	53	5.8		4.3			106	15.4
BASIS FOR COST ESTIMATE:												
NONRECURRING				.6								.6
KITS			53	.7	53	1.0					106	1.7
DATA				.8								.8
SUPPORT EQUIP.				.2		1.2						1.4
LAUNCHERS				3.0		3.6		4.3				10.9
TOTAL			53	5.3	53	5.8		4.3			106	15.4

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 18 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RECONFIGURE F-4E TO G

MODELS OF AIRCRAFT AFFECTED: F-4E

DESCRIPTION/JUSTIFICATION: PROVIDES FUNDS TO MAINTAIN F-4G WILD WEASEL ASSETS AT THE PROGRAMMED FORCE STRUCTURE LEVEL THROUGH 1992 BY MODIFYING 18 ADDITIONAL F-4E TO THE F-4G CONFIGURATION. THE MODIFICATION INCLUDES INSTALLATION OF THE AN-101 INERTIAL NAVIGATION SYSTEM AND THE APR-38 HOMING AND WARNING SYSTEM WITH HARM CAPABILITY AND EXPANDED MEMORY CAPABILITY COMPUTER

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
				6	29.4	10	50.8	2	7.3	18	87.5

BASIS FOR COST ESTIMATE:

KITS				6	29.4	10	50.8	2	7.3	18	87.5
	---	---	---	---	---	---	---	---	---	---	---
TOTAL				6	29.4	10	50.8	2	7.3	18	87.5

**METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 35 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: WILD WEASEL EXPANDED DATA CAPABILITY

MODELS OF AIRCRAFT AFFECTED: F-4G

DESCRIPTION/JUSTIFICATION: THE CURRENT F-4G COMPUTER MEMORY CANNOT ACCEPT AN UPGRADE IN CAPABILITY TO MEET ADVANCING THREATS. THE MEMORY CAPABILITY WILL BE INCREASED THREEFOLD TO ALLOW FOR GROWTH IN FREQUENCY COVERAGE, ADVANCED THREAT ACQUISITION, AND FULL HARM MISSILE CAPABILITY.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
BASIS FOR COST ESTIMATE:					60	25.1	46	20.3			106	45.4
KITS					60	25.1	46	20.3			106	45.4
TOTAL					60	25.1	46	20.3			106	45.4

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RADAR MODERNIZATION

MODELS OF AIRCRAFT AFFECTED: F-4E/F-4G

DESCRIPTION/JUSTIFICATION: THE CURRENT RADAR AND FIRE CONTROL SYSTEM ARE EXPERIENCING A REDUCED MEAN TIME BETWEEN FAILURE (MTBF) AND WILL BECOME LOGISTICALLY NON-SUPPORTABLE IN THE LATE 1980'S. THIS MODIFICATION WILL REPLACE OR MODIFY THE CURRENT LINE REPLACEABLE UNITS (LRUS) WITH CURRENT STATE-OF-THE-ART ELECTRONIC COMPONENTS. THIS PROGRAM WILL PROVIDE A SIGNIFICANT (3-5 TIMES) IMPROVEMENT IN MTBF AND PROVIDE A CORRESPONDING REDUCTION IN SUPPORT COSTS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
							1	50.8	550	257.8	551	308.6
BASIS FOR COST ESTIMATE:												
NONRECURRING							1	10.8			1	10.8
KITS									550	257.8	550	257.8
DATA								12.0				12.0
SUPPORT EQUIP.								15.0				15.0
SIMULATORS								13.0				13.0
TOTAL							1	50.8	550	257.8	551	308.6

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-34 PROGRAM

FY-34 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CENTERLINE SPLICE, MN-10509A

MODELS OF AIRCRAFT AFFECTED: F/R-4

DESCRIPTION/JUSTIFICATION: REPLACEMENT OF CENTERLINE SPLICE WITH A NEW FAIL-SAFE SPLICE PLATE IS REQUIRED TO ELIMINATE STRESS CORROSION CRACKING IN PRESENT SPLICE PLATE AND PREVENT LOSS OF AIRCRAFT.

SCOPE OF PROGRAM:

	PRIOR		FY-33		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	59	4.7			217	4.5	240	6.6	473	12.6	989	28.4
BASIS FOR COST ESTIMATE:												
NONRECURRING	3	2.4									3	2.4
KITS	56	.7			217	3.4	240	5.5	473	9.0	986	18.6
DATA		.2										.2
TOOLING		1.4				1.1		1.1		3.6		7.2
TOTAL	59	4.7			217	4.5	240	6.6	473	12.6	989	28.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 21 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: REWORK OUTER WING, MN-10510A

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: REWORK OF THE OUTER WING TO BEEF-UP AREAS WHERE FATIGUE CRACKS HAVE OCCURRED. REPLACE OUTER WING SKIN AND STRUCTURAL COMPONENTS ON F-4C, D AND RF-4C UNSLATTED AIRCRAFT. ON F-4E/G SLATTED AIRCRAFT, OUTER WING PANEL LOWER SKIN HOLES WILL BE OVERSIZED OR DAMAGED HOLES WILL BE REAMED AND NEW FASTENERS INSTALLED. THIS IS TO PREVENT LOSS OF OUTER WING FROM FATIGUE FAILURE OF OUTER WING COMPONENTS.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
101	10.1	549	17.3	475	14.1					1125	41.5

BASIS FOR COST ESTIMATE:

NONRECURRING	4	2.3								4	2.3
KITS	97	1.3	549	16.0	475	12.9				1121	30.1
DATA		.3									.3
TOOLING		3.2		1.3		1.3					5.8
MOD OF SPARES		3.0									3.0
TOTAL	101	10.1	549	17.3	475	14.1				1125	41.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 16 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HIGH PERFORMANCE CENTERLINE FUEL TANK, MW-11514A

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES AN EXTERNAL CENTERLINE FUEL TANK WITH CARRIAGE CAPABILITY EQUAL TO THE AIRCRAFT MANEUVERING LIMITS. THIS WILL INCREASE SAFETY AND PERFORMANCE FEATURES. THE PRESENT CENTERLINE TANK IS SUBJECT TO NOSE OR TAIL CONE SEPARATION WHENEVER "G" LIMITS HAVE BEEN EXCEEDED. USING COMMANDS CANNOT ACCOMPLISH REQUIRED TRAINING MISSIONS WITHOUT THE POSSIBILITY OF EXCEEDING TANK LIMITS. IN FLIGHT NOSE CONE FAILURES HAVE CAUSED VIOLENT PITCH INPUTS AND WAS INVOLVED IN ONE IN FLIGHT MISHAP.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			325	1.8	800	4.3	438	2.1			1563	8.2
BASIS FOR COST ESTIMATE:												
NONRECURRING			1	.2							1	.2
KITS			324	1.4	800	3.6	438	2.1			1562	7.1
DATA				.1								.1
TOOLING				.1								.1
SIMULATORS						.7						.7
TOTAL			325	1.8	800	4.3	438	2.1			1563	8.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/CFT
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RF-4 RADAR UPDATE, MN-12504B

MODELS OF AIRCRAFT AFFECTED: RF-4

DESCRIPTION/JUSTIFICATION: THE RF-4 RADAR (APQ-99) WILL BE MODIFIED BY REPLACING OBSOLETE AND HIGH FAILURE COMPONENTS AND INSTALLING THE DIGITAL SCAN CONVERTER IN BOTH COCKPITS. THE PAVE TACK AIRCRAFT WILL ONLY HAVE FRONT RADAR SCOPE REPLACED. DUE TO THE AGE AND TECHNOLOGY CHANGES, THE EXISTING APQ-99 HAS BECOME NONSUPPORTABLE. THE PROPOSED MODIFICATION WILL ELIMINATE PARTS OBSOLENCE. ADDITIONALLY, MAINTENANCE COST SAVINGS ARE EXPECTED TO BE AT LEAST \$9.0 MILLION PER YEAR.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					1	15.8	107	37.7	205	60.2	313	113.7
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	10.8					1	10.8
KITS							107	30.7	205	48.2	312	78.9
DATA						5.0						5.0
SUPPORT EQUIP.								6.9				6.9
TOOLING								.1				.1
SIMULATORS									12.0			12.0
TOTAL					1	15.8	107	37.7	205	60.2	313	113.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 17 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ENGINE BAY ISOLATION, MN-12509A

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION INVOLVES RELOCATING THE F-4 ENGINE FUEL SHUT-OFF VALVE AND SEALING THE ENGINE BAYS TO CONTROL PRESSURE AND AIR LEAKAGE. THE F-4 HAS HAD EXCESSIVE FIRES IN THE ENGINE BAYS WHICH COULD RESULT IN LOSS OF AIRCRAFT.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
						399	12.4	1169	30.8	1568	43.2

BASIS FOR COST ESTIMATE:

NONRECURRING						3	2.2			3	2.2
KITS						396	9.4	1169	30.8	1565	40.2
DATA							.8				.8
TOTAL						399	12.4	1169	30.8	1568	43.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 13 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: INERTIAL NAVIGATION SYSTEM, AN-19501B

MODELS OF AIRCRAFT AFFECTED: F-4G

DESCRIPTION/JUSTIFICATION: THE OPERATIONAL READINESS OF THE F-4G IS DEGRADED BY LOW RELIABILITY OF THE PRESENT INERTIAL NAVIGATION ATTACK SYSTEM. REPLACEMENT OF THE INERTIAL NAVIGATION AND WEAPON DELIVERY SYSTEM WILL ENHANCE OPERATIONAL CAPABILITIES THROUGH INCREASED RELIABILITY AND MAINTAINABILITY RESULTING IN INCREASED WEAPON SYSTEM AVAILABILITY.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	2	24.1		8.8	29	15.4	61	40.5	10	7.4	102	96.2
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	16.6		.4							1	17.0
KITS	1	.2			29	15.3	61	38.5	10	7.4	101	61.4
DATA		5.2										5.2
SUPPORT EQUIP.		2.1		8.4		.1						10.6
SIMULATORS								2.0				2.0
TOTAL	2	24.1		8.8	29	15.4	61	40.5	10	7.4	102	96.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/DEPOT FIELD TEAM
LEAD TIME - 16 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: EJECTION SEAT INERTIA REEL, MW-22134A

MODELS OF AIRCRAFT AFFECTED: F/RF-4

DESCRIPTION/JUSTIFICATION: THE CURRENTLY USED BALLISTIC POWERED INERTIA REEL HAS MAINTENANCE PROBLEMS ASSOCIATED WITH THE USE OF FIBERGLASS LOCK CUP AND DIFFICULTY IN OBTAINING PROPER THICKNESS MATERIAL FOR INERTIA REEL STRAPS. IN ADDITION, BINDING HAS BEEN NOTED ON THE BALLISTIC TAKE UP REEL WHICH IS DUE TO INERTIA REEL BEING ROTATED WHEN MOUNTED. THE US NAVY USES A DIFFERENTLY DESIGNED INERTIA REEL WHICH HAS A GOOD MAINTENANCE HISTORY.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					1634	2.3	1626	1.7			3260	4.0
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	*					1	*
KITS					1633	1.4	1626	1.7			3259	3.1
DATA						.3						.3
SUPPORT EQUIP.						.1						.1
TOOLING						.5						.5
TOTAL					1634	2.3	1626	1.7			3260	4.0

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 6 MONTHS

* LESS THAN \$ 50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: EJECTION SEAT GAS FIRED CATAPULT, MW-22135A

MODELS OF AIRCRAFT AFFECTED: F/RV-4

DESCRIPTION/JUSTIFICATION: THE EJECTION SEAT SYSTEM NOW FIRES THE CATAPULT BY MECHANICAL LINKAGES. CASES HAVE BEEN REPORTED WHERE LINKAGES HAVE JAMMED AND INADVERTENTLY FIRED THE CATAPULT. WITH A GAS-FIRED SYSTEM, THE LINKAGES WILL BE ELIMINATED. THERE WILL BE NO ADJUSTMENTS REQUIRED NOR WILL THERE BE A JAMMING PROBLEM. ADDITIONALLY, THE GAS-FIRED SYSTEM WILL BE EASIER TO MAINTAIN THAN EXISTING SYSTEM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							2208	8.1	1052	3.7	3260	11.8
BASIS FOR COST ESTIMATE:												
NONRECURRING								.5				.5
KITS							2208	6.9	1052	3.7	3260	10.6
DATA								.3				.3
TOOLING								.4				.4
TOTAL							2208	8.1	1052	3.7	3260	11.8

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 7 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATIONS: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: STRUCTURAL FATIGUE, MN-52036A

MODELS OF AIRCRAFT AFFECTED: RF-4

DESCRIPTION/JUSTIFICATION: ENGINEERING EVALUATION HAS DETERMINED THAT MODIFICATION TO THE UPPER ENGINE MOUNTS, AND LOWER TORQUE BOX SKIN ON RF-4C AIRCRAFT IS REQUIRED. THIS MODIFICATION WAS DONE ON F-4C/D AIRCRAFT AND WILL IMPROVE THE STRUCTURAL INTEGRITY OF THE RF-4C AIRCRAFT.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
						108	5.0	210	2.8	318	7.8

BASIS FOR COST ESTIMATE:

NONRECURRING						1	1.0			1	1.0
KITS						107	1.2	210	2.8	317	4.0
DATA							.8				.8
TOOLING							2.0				2.0
TOTAL						108	5.0	210	2.8	318	7.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: F-15 ALL ENVIRONMENT IDENTIFICATION

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: CRITICAL OPERATIONAL REQUIREMENTS HAVE DICTATED THAT DIVERSE/RELIABLE BEYOND VISUAL RANGE IDENTIFICATION CAPABILITIES BE INCORPORATED INTO TACTICAL COMBAT AIRCRAFT ON A PRIORITY BASIS. THIS MODIFICATION PROVIDES EQUIPMENT CAPABILITY FOR BEYOND VISUAL RANGE IDENTIFICATION THROUGH USE OF RADIO FREQUENCY IDENTIFICATION TECHNIQUES.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
				193	14.2	142	9.5			335	23.7

BASIS FOR COST ESTIMATE:

NONRECURRING				1	1.0					1	1.0
KITS				192	10.6	142	8.2			334	18.8
DATA					.7						.7
SUPPORT EQUIP.					1.9		1.3				3.2
TOTAL				193	14.2	142	9.5			335	23.7

**METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 9 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ANTI-SATELLITE DEFENSE

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES THE NECESSARY CHANGES TO SELECT F-15 AIRCRAFT TO ACCOMMODATE ANTI-SATELLITE DEFENSE CAPABILITIES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							8	38.9	32	137.4	40	176.3
BASIS FOR COST ESTIMATE:												
NONRECURRING								3.6				3.6
WITS							8	1.6	32	20.1	40	21.7
DATA								1.0				1.0
SUPPORT EQUIP.								.1		1.3		1.4
PYLON							(5)	32.6	(23)	116.0	(28)	148.6
TOTAL							8	38.9	32	137.4	40	176.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MULTI STAGE IMPROVEMENT PROGRAM (BASIC)

MODELS OF AIRCRAFT AFFECTED: F-15A/B/C/D

DESCRIPTION/JUSTIFICATION: PROGRAM TO UPGRADE THE F-15 FORCE FOR CONTINUED COMBAT EFFECTIVENESS PROVIDES THE EFFICIENT, COST EFFECTIVE RETROFIT OF THE F-15 TO INCORPORATE ITEMS IDENTIFIED IN THE IAF CONFIGURATION SUMMARY. THE TOTAL MODIFICATION WILL INCORPORATE AMRAAM, PROGRAMMABLE ARMAMENT CONTROL SYSTEM (PACS), SPLIT-SCREEN VIDEO TAPE RECORDER, RADAR PROGRAMMABLE SIGNAL PROCESSOR (RSP); HF RADIO, ANTI-SATELLITE DEFENSE (ASAT), IMPROVED CENTRAL COMPUTER, TACTICAL ELECTRONIC WARFARE SYSTEM (TEWS) UPDATE (ALR-56/ALQ-135), COUNTER-MEASURES DISPENSER (CMD) AND SEEK BANDIT. THIS MODIFICATION IS FOR BASIC CAPABILITIES THAT ALL GROUPS RECEIVE (AMRAAM, PACS, CTWS). THERE WILL BE THREE SEPARATE MSIP MODIFICATIONS FOR EITHER THE A & B SERIES, THE C & D SERIES AND THOSE F-15S ASSIGNED THE AIR DEFENSE MISSION WHICH ARE OVER AND ABOVE THIS BASIC MODIFICATION PROGRAM.

SCOPE OF PROGRAM:

	PRIOR	FY-83	FY-84	FY-85	OUTYEAR	T O T A L			
	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY	COST		
			1.8	33	21.6	637	259.9	670	283.3
BASIC FOR COST ESTIMATE:									
NONRECURRING			.7		1.9				2.6
RITS				33	18.2	637	245.9	670	264.1
DATA			1.1		.6		.2		1.9
TRAINER							4.0		4.0
SUPPORT EQUIP.					.9		9.8		10.7
TOTAL			1.8	33	21.6	637	259.9	670	283.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MULTI STAGE IMPROVEMENT PROGRAM-A AND B SERIES

MODELS OF AIRCRAFT AFFECTED: F-15A/B

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES THE PROGRAMMABLE SIGNAL PROCESSOR PECULIAR TO THE A AND B SERIES OF THE AIRCRAFT. THESE MODIFICATIONS ARE OVER AND ABOVE THOSE WHICH ARE INCLUDED IN THE MSIT (BASIC) MODIFICATIONS WHICH WILL BE INCORPORATED ON ALL F-15 SERIES AIRCRAFT.

SCOPE OF PROGRAM:

	FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:										
NONRECURRING						1.1				1.1
KITS					8	4.7	157	62.5	165	67.2
DATA						.4				.4
SUPPORT EQUIP.								3.4		3.4
TOTAL					8	6.2	157	65.9	165	72.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MULTI STAGE IMPROVEMENT PROGRAM-C AND D SERIES

MODELS OF AIRCRAFT AFFECTED: F-15C/D

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES THE COUNTER MEASURE DISPENSER, DUAL MODEM RADAR, TACTICAL ELECTRONIC WARNING SYSTEM UPDATE, PAVE HINT CAPABILITY, SEEK HANDIT, PREPLANNED PRODUCT IMPROVEMENT AND CENTRAL COMPUTER PECULIAR TO THE C AND D SERIES. THESE MODIFICATIONS ARE OVER AND ABOVE THOSE WHICH ARE INCLUDED IN THE MSIP (BASIC) MODIFICATIONS WHICH WILL BE INCORPORATED ON ALL F-15 SERIES AIRCRAFT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
BASIS FOR COST ESTIMATE:					4.9	22	28.8	292	345.4		314	379.1
NONRECURRING					1.6		1.5					3.1
KITS							22	26.4	292	324.3	314	350.7
DATA					2.5					1.0		3.5
TRAINER										1.5		1.5
SUPPORT EQUIP.					.3		.9		16.6			20.3
TOTAL					4.9	22	28.8	292	345.4		314	379.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MULTI STAGE IMPROVEMENT PROGRAM-AIR DEFENSE

MODELS OF AIRCRAFT AFFECTED: F-15 A/B

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES THE HF COMMUNICATIONS PROGRAMABLE SIGNAL PROCESSOR, AND IMPROVED CENTRAL COMPUTER PECULIAR TO THE A AND B SERIES COMMITTED TO THE AIR DEFENSE MISSION. THESE MODIFICATIONS ARE OVER AND ABOVE THOSE WHICH ARE INCLUDED IN THE MSIP (BASIC) MODIFICATIONS WHICH WILL BE INCORPORATED ON ALL F-15 SERIES AIRCRAFT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					2.2	14	10.7	177	93.4		191	106.3
BASIS FOR COST ESTIMATE:												
NONRECURRING					.9		.6					1.5
KITS						14	9.6	177	88.3		191	97.9
DATA					1.3							1.3
TRAINER									1.2			1.2
SUPPORT EQUIP.							.5		3.9			4.4
TOTAL					2.2	14	10.7	177	93.4		191	106.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: COMPUTER AND DISPLAY REPLACEMENT, MN-12529B

MODELS OF AIRCRAFT AFFECTED: F-15 - FLT SIMULATOR

DESCRIPTION/JUSTIFICATION: CURRENT F-15 FLIGHT SIMULATORS USE A HARRIS 6024/4 COMPUTER AND ADAGE GP/400 DISPLAY SYSTEM; BOTH BECOMING UNSUPPORTABLE. THE VENDORS HAVE INDICATED THAT THEY WILL NOT PROVIDE SUPPORT AFTER JUNE 1985. THE PRESENT COMPUTER SYSTEM ALSO DOES NOT HAVE THE PROCESSING CAPABILITY TO INCORPORATE CAPABILITIES INCLUDED IN THE PLANNED FY84 PRODUCTION LINE AND CLASS V MODIFICATIONS TO BE INITIATED ON VARIOUS MISSION SERIES IN FY84. FAILURE TO PERFORM THESE REPLACEMENT ACTIONS WILL REDUCE SUPPORTABILITY OF THE SIMULATOR AND REQUIRED TRAINING.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					3	4.9	4	5.3	3	4.5	10	14.7
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	1.8					1	1.8
KITS					2	2.6	4	5.3	3	4.5	9	12.4
DATA						.5						.5
TOTAL					3	4.9	4	5.3	3	4.5	10	14.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 16 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: IMPROVED COMM/NAV, MN-61U001

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: UPDATED UHF/TACAN COMMUNICATIONS EQUIPMENT AND VINSON TACTICAL SECURE VOICE EQUIPMENT ARE BEING INSTALLED ON THE PRODUCTION LINE FOR THE F-15C/D AIRCRAFT. THIS MODIFICATION IS REQUIRED TO STANDARDIZE THE F-15 AIRCRAFT. THE F-15 INTEGRATED COMMUNICATIONS CONTROL PANEL (ICCP) MAKES ACCOMPLISHING ALL COMMUNICATION MODIFICATIONS AT ONE TIME MANDATORY.

SCOPE OF PROGRAM:

	PRICE		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	299	23.3	212	16.6	108	8.5					619	48.4
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	2.6									1	2.6
KITS	298	20.6	212	16.6	108	8.5					618	45.7
TRAINER		.1										.1
TOTAL	299	23.3	212	16.6	108	8.5					619	48.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 21 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: REPLACE RADAR RECEIVER PRE-AMPLIFIER, MN-621108

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION REPLACES THE EXISTING PREAMPLIFIER MODULE WITH AN INTERCHANGEABLE MODULE DESIGN. THE NEW MODULE PROVIDES IMPROVED PERFORMANCE, HIGHER RELIABILITY AND LOWER LIFE CYCLE COSTS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					142	3.0	150	2.6	155	3.0	447	8.6
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	.7					1	.7
KITS					141	2.2	150	2.6	155	3.0	446	7.8
DATA						.1						.1
SUPPORT EQUIP.						*						*
TOTAL					142	3.0	150	2.6	155	3.0	447	8.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 18 MONTHS

* LESS THAN \$ 50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ICS LOW VOLTAGE POWER SUPPLY, MN-621438

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: CHANGES IN SOFTWARE TEST PACKAGES AND SOME OF THE PROGRAMMABLE READ ONLY MEMORY (PROM) CHIPS REQUIRE THAT THE INTEGRATED TEST EQUIPMENT BE CHANGED TO PROPERLY TEST ELECTRONIC WARFARE SYSTEM EQUIPMENT. THIS ENTAILS REPLACING THE LOW VOLTAGE POWER SUPPLY AND THE INTERFACE ADAPTERS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					19	3.1					19	3.1
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	2.0					1	2.0
DATA						.2						.2
SUPPORT EQUIP.					18	.7					18	.7
MOD OF SPARES						.2						.2
TOTAL					19	3.1					19	3.1

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 10 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RWR LRU-3 TEST PACKAGE, MN-62145B

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: THE CURRENT CONFIGURATION OF THE ELECTRONIC WARFARE SYSTEM INTEGRATED TEST EQUIPMENT DOES NOT ADEQUATELY TEST THE F-15 SYSTEM. THE RADAR WARNING RECEIVER (RWR) TEST PACKAGE REQUIRES HARDWARE CHANGES WHICH INCLUDE MODIFICATION OF ONE EXTENDER CARD, ADDITION OF 32 MULTIPLEXER CHANNELS TO THE INTERFACE UNIT AND RELATED RESISTOR AND CO-AXIAL CABLE CHANGES TO PROVIDE ADDITIONAL FAULT ISOLATION OF RF ASSEMBLIES.

SCOPE OF PROGRAM:

	PRIOR		FY-93		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					19	2.1					19	2.1
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	1.5					1	1.5
DATA						.1						.1
SUPPORT EQUIP.					18	.4					18	.4
MOD OF SPARES						.1						.1
TOTAL					19	2.1					19	2.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: VERTICAL SITUATION DISPLAY OVERCURRENT

MODELS OF AIRCRAFT AFFECTED: F-15

DESCRIPTION/JUSTIFICATION: THE FIBER OPTICS BUNDLES (FOB'S) ARE REMOVED TO ACCOMMODATE THE VIDEO RECORDER. THESE FOB'S PROVIDED FEEDBACK INFORMATION FOR THE AUTOMATIC BRIGHTNESS CONTROL AND THE BUILT-IN TEST CIRCUITRY. THE PROPER LEVEL OF PHOSPHOR EXCITATION ARE NOW SOLELY UNDER THE OPERATOR'S CONTROL AND THE BIT SIGNALS ARE REPORTED IN THE SAME MANNER WITH ONLY THE INTERNAL BIT TECHNIQUE CHANGING. THE LOW VOLTAGE POWER SUPPLY HAS BEEN REDESIGNED TO COMBINE THE +15 AND -15 VDC CIRCUITS INTO ONE MODULE AND TO ADD REGULATING AND SAMPLING CIRCUITRY TO THE +30 AND -30 VDC CIRCUITS. THE PURPOSE OF THE NEW CIRCUITRY IS TO PREVENT THE DEFLECTION AMPLIFIERS FROM DRAWING EXCESSIVE CURRENT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					100	1.4	240	2.5	240	2.7	580	6.6
BASIS FOR COST ESTIMATE:												
NONRECURRING						.1						.1
KITS					100	1.0	240	2.5	240	2.7	580	6.2
DATA						.1						.1
MOD OF SPARES						.2						.2
TOTAL					100	1.4	240	2.5	240	2.7	580	6.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: IMPROVED AUGMENTOR PERFORMANCE, MM-20709

MODELS OF AIRCRAFT AFFECTED: F-15: F-100 ENGINE

DESCRIPTION/JUSTIFICATION: THIS TASK REDESIGNS THE AUGMENTOR LOGIC OVERFUEL SYSTEM TO REDUCE AUGMENTOR INITIATED FAN STALLS AND ELIMINATE QUICKFILL NOISE BY DAMPING THE QUICKFILL SERVO VALVE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	646	2.9	576	2.7	595	2.6					1817	8.2
BASIS FOR COST ESTIMATE:												
KITS	646	2.8	576	2.7	595	2.6					1817	8.1
DATA		.1										.1
TOTAL	646	2.9	576	2.7	595	2.6					1817	8.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 14 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: OIL TANK/PUMP INTERFACE LEAKAGE, NM-20742

MODELS OF AIRCRAFT AFFECTED: F-15: F-100 ENGINE

DESCRIPTION/JUSTIFICATION: FIELD AND PRODUCTION PERSONNEL HAVE REPORTED OIL LEAKS AT THE OIL TANK TO OIL PUMP JUMPER TUBE INTERFACE. OIL LEAKS OCCUR IF "O" RINGS ARE CUT DURING INSTALLATION OF THE OIL TANK. THIS TASK REDESIGNS THE OIL TANK TO OIL PUMP TRANSFER TUBES TO PROVIDE FOR A SIMPLIFIED TANK INSTALLATION PROCEDURE TO PREVENT O-RING CUTTING.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:			662	1.6	920	2.3					1582	3.9
KITS			662	1.6	920	2.3					1582	3.9
DATA				*								*
TOTAL			662	1.6	920	2.3					1582	3.9

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 20 MONTHS

* LESS THAN \$ 50,000

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AIR DEFENSE AMRAAM CAPABILITY

MODELS OF AIRCRAFT AFFECTED: F-16

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION WILL ADD ADVANCED MEDIUM RANGE AIR-TO-AIR MISSILE (AMRAAM) CAPABILITY TO FIVE NATIONAL GUARD SQUADRONS OF F-16 A/B AIRCRAFT. THE AIRCRAFT WILL GET A MINOR MODIFICATION TO THE CURRENT RADAR; A NEW DIGITAL SIGNAL PROCESSOR; AN ADVANCED CENTRAL INTERFACE UNIT (STORES COMPUTER); A DOUBLE SPEED, DOUBLE MEMORY, DOUBLE MUX BUS FIRE CONTROL COMPUTER; AMRAAM LAUNCHER; AND REMOTE INTERFACE UNITS. FINAL CONFIGURATION WILL PROVIDE LEVEL 3 AMRAAM CAPABILITY.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
				2	16.0	39	44.0	89	118.1	130	178.1

BASIS FOR COST ESTIMATE:

NONRECURRING				2	13.4					2	13.4
KITS						39	37.9	89	80.4	128	118.3
DATA							1.4				1.4
TRAINER							4.7				4.7
SUPPORT EQUIP.					2.6				22.5		25.1
LAUNCHERS									15.2		15.2
TOTAL				2	16.0	39	44.0	89	118.1	130	178.1

**METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 33 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALR-69 IMPROVEMENT PROGRAM

MODELS OF AIRCRAFT AFFECTED: F-16 A/B

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION IMPROVES THE INSTALLED PERFORMANCE OF THE ALR-69 RADAR WARNING RECEIVER BY PROCURING FOUR IMPROVED AMPLIFIER DETECTORS AND ONE IMPROVED FREQUENCY SELECTIVE RECEIVER. THIS CHANGE HAS BEEN INCORPORATED INTO THE PRODUCTION LINE.

SCOPE OF PROGRAM:

PRICE		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	----	---	----	---	----	---	----	---	----	-----	-----
				548	13.3	200	5.0			748	18.3
				548	13.1	200	5.0			748	18.1
					.2						.2
				548	13.3	200	5.0			748	18.3

BASIS FOR COST ESTIMATE:

KIPS
DATA

TOTAL

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: COMPRESSOR INLET VARIABLE VANE

MODELS OF AIRCRAFT AFFECTED: F-16

DESCRIPTION/JUSTIFICATION: SEVERAL FIELD ENGINES HAVE EXPERIENCED COMPRESSOR INLET VARIABLE VANE (CIVV) ARM WEAR WITH AS LITTLE AS 300 HOURS EVENTUALLY RESULTING IN VANE ARM DISENGAGEMENT AS MORE TIME IS ACCUMULATED. THE PROBLEM IS CAUSED BY FOREIGN DIRT AND CHIPPED HARDCOAT TRAPPED IN SYNCHRONIZING RING BALL AND SOCKET. THIS TASK WILL PROVIDE A REDESIGNED CIVV SYNCHRONIZING RING FEATURING UNIBALL BEARINGS WITH DUST COVERS TO REPLACE THE CURRENT UNPROTECTED BALL AND SOCKET DESIGN.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
			304	3.5	141	1.7	315	3.5	153	1.8	913	10.5
BASIS FOR COST ESTIMATE:												
KITS			304	3.5	141	1.7	315	3.5	153	1.8	913	10.5
DATA				*								*
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL			304	3.5	141	1.7	315	3.5	153	1.8	913	10.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 14 MONTHS

* LESS THAN \$50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: GEAR TYPE MAIN ENGINE FUEL PUMP

MODELS OF AIRCRAFT AFFECTED: F-16

DESCRIPTION/JUSTIFICATION: CURRENT VANE TYPE MAIN ENGINE FUEL PUMP DOES NOT PROVIDE RELIABILITY DESIRED FOR SINGLE ENGINE AIRCRAFT (F-16). GEAR TYPE PUMP HAS MUCH HIGHER RELIABILITY, LESS COST AND GREATER DURABILITY. GEAR TYPE PUMP HAS BEEN DEVELOPED FOR PRODUCTION INCORPORATION AND RETROFIT ON ALL F100-PW-200 ENGINES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
	390	19.5			360	18.0	200	10.0			950	47.5
BASIS FOR COST ESTIMATE:												
KITS	390	19.3			360	18.0	200	10.0			950	47.3
DATA		.2										.2
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	390	19.5			360	18.0	200	10.0			950	47.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: IMPROVED INLET ANTI-ICE CAPABILITIES

MODELS OF AIRCRAFT AFFECTED: F-16

DESCRIPTION/JUSTIFICATION: F-16 OPERATIONAL EXPERIENCE AT HILL AIR FORCE BASE (CY 79) HAS RESULTED IN 1ST STAGE FAN BLADES FOREIGN OBJECT DAMAGE (FOD) FROM ICE. THE IMPROVED INLET SYSTEM DEVELOPED IN COMPONENT IMPROVEMENT PROGRAM WILL BE INCORPORATED.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							300	16.0	589	27.5	889	43.5
BASIS FOR COST ESTIMATE:												
KITS							300	16.0	589	27.5	889	43.5
TOTAL							300	16.0	589	27.5	889	43.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: NUCLEAR BIOLOGICAL CHEMICAL (NBC) PROTECTIVE SYSTEM

MODELS OF AIRCRAFT AFFECTED: F-16A/J

DESCRIPTION/JUSTIFICATION: THE CURRENT F-16 LIFE SUPPORT SYSTEM HAS NO PROVISIONS FOR CHEMICAL WARFARE DEFENSE. TO ACHIEVE THIS, MODIFICATIONS TO CURRENT OXYGEN SYSTEM, AIRCRAFT WIRING AND STRUCTURE WILL BE REQUIRED AS WELL AS THE ADDITION OF A NEW COCKPIT CIRCUITRY. AVAILABLE RESPIRATORS ARE TO BE INCLUDED IN THE FINAL DESIGN, IF TESTS VERIFY EFFECTIVENESS.

SCOPE OF PROGRAM:

	PRIO:	FY-83	FY-84	FY-85	OUTYEAR	T O T A L	
	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY	COST
				650 7.7		650	7.7
BASIS FOR COST ESTIMATE:							
NETS				650 7.7		650	7.7
DATA				*			*
TRAINER				*			*
SUPPORT EQUIP.				*			*
TOOLING				*			*
TOTAL				650 7.7		650	7.7

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

* LESS THAN \$50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: OIL TANK CRACKING/PUMP LEAKAGE

MODELS OF AIRCRAFT AFFECTED: F-16

DESCRIPTION/JUSTIFICATION: THE OIL TANK CRACKS AT THE FORWARD AND/OR REAR EDGE NEAR THE UPPER MOUNTING STRAPS. THIS RANDOM PROBLEM RESULTS FROM A LOCALIZED OVERSTRESS CONDITION. THIS TASK USES NEW BRACKETS, MOUNT LINKS, AND VIBRATION ABSORBING MATERIALS TO REDUCE THE VIBRATORY LOADS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							1853	6.1			1853	6.1
BASIS FOR COST ESTIMATE:												
KITS							1853	6.1			1853	6.1
DATA								*				*
TOTAL							1853	6.1			1853	6.1

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 20 MONTHS

* LESS THAN \$50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: INTEGRATED DISPLAY SET RELIABILITY, MN-103208

MODELS OF AIRCRAFT AFFECTED: F-111D

DESCRIPTION/JUSTIFICATION: THE ANNUAL LOGISTIC SUPPORT COST (LSC) IS \$4.2 MILLION DOLLARS FOR CURRENT CONFIGURATION DUE TO LOW RELIABILITY OF DIGITAL DATA INDICATOR AND ANALOG DISPLAY INDICATOR. THE NEW DESIGN USING DIGITAL LOGIC AND MICROELECTRONIC COMPONENTS WILL REDUCE THE ANNUAL LSC TO \$410,000. FAILURE TO PROVIDE RELIABILITY IMPROVEMENTS WILL RESULT IN A NON-SUPPORT POSTURE DUE TO NON-AVAILABILITY OF ELECTRONIC COMPONENTS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	2	9.7	18	4.9	60	13.7					80	28.3
BASIS FOR COST ESTIMATE:												
NONRECURRING	2	9.7									2	9.7
KITS			18	4.9	60	13.7					78	18.6
	2	9.7	18	4.9	60	13.7					80	28.3
TOTAL	2	9.7	18	4.9	60	13.7					80	28.3

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 3 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CREW ESCAPE MODULE PARACHUTE ENTANGLEMENT, MN-11338A

MODELS OF AIRCRAFT AFFECTED: F/FB-111

DESCRIPTION/JUSTIFICATION: AN UNSUCCESSFUL EJECTION OF AN F-111 CREW MODULE WAS CAUSED BY PARACHUTE ENTANGLEMENT. THE FOLLOWING MODIFICATIONS WILL BE INCORPORATED TO PREVENT PARACHUTE ENTANGLEMENT. 1. INCORPORATE A CUTTER TO JETTISON THE STABILIZATION- STABILIZATION-BREAK PARACHUTE IN THE LOW SPEED MODE. 2. INCORPORATE A CUTTER TO JETTISON THE RECOVERY PILOT CHUTE AND PACKING BAG IN THE HIGH SPEED MODE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					2	1.1	197	5.5	197	6.0	396	12.6
BASIS FOR COST ESTIMATE:												
NONRECURRING					2	.3					2	.3
KITS							197	5.5	197	6.0	394	11.5
DATA						.1						.1
TOOLING						.7						.7
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL					2	1.1	197	5.5	197	6.0	396	12.6

**METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: PACER "30", MN-114038

MODELS OF AIRCRAFT AFFECTED: F/PB-111A/E/D

DESCRIPTION/JUSTIFICATION: MODIFICATION PROVIDES A GROUP OF 36 SPECIFIC ENGINEERING CHANGES, COMBINED INTO ONE ENGINEERING CHANGE PACKAGE, THAT WILL UPDATE AND SIGNIFICANTLY IMPROVE THE DURABILITY OF THE F-111 ENGINES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	241	38.4	230	39.4	211	38.0	203	33.4			885	149.2
BASIS FOR COST ESTIMATE:												
KITS	241	38.1	230	39.4	211	38.0	203	33.4			885	148.9
DATA		.1										.1
SUPPORT EQUIP.		.1										.1
TOOLING		.1										.1
TOTAL	241	38.4	230	39.4	211	38.0	203	33.4			885	149.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 24 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: REDESIGN RADAR TRANSMITTER, MN-183168

MODELS OF AIRCRAFT AFFECTED: F-111D

DESCRIPTION/JUSTIFICATION: THE APQ-130 RADAR TRANSMITTER CONSISTS OF A PULSED TRAVELING WAVE TUBE (TWT) AMPLIFIER AND ASSOCIATED HIGH VOLTAGE/HIGHPOWER PULSE NETWORKS AND SOLID STATE COMPONENTS. DUE TO THE COMPLEXITY AND WORKING STRESS LEVELS, THE TRANSMITTER IS A HIGH FAILURE ITEM AND IS COSTLY TO MAINTAIN. THE REDESIGNED UNIT WILL EMPLOY A NEW TRAVELING WAVE TUBE WHICH DOES NOT REQUIRE ALL OF THE ASSOCIATED HIGH POWER LEVEL SWITCHING AND PULSE FORMING NETWORKS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	1	6.0	45	7.7	32	6.4					78	20.1
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	3.8									1	3.8
KITS			45	7.7	32	6.4					77	14.1
DATA		1.2										1.2
SUPPORT EQUIP.		1.0										1.0
TOTAL	1	6.0	45	7.7	32	6.4					78	20.1

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 9 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: WEAPONS/NAVIGATION COMPUTER, MN-19304B

MODELS OF AIRCRAFT AFFECTED: FB/F-111D/F

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION WILL REPLACE THE EXISTING UNRELIABLE GENERAL PURPOSE COMPUTER WITH A NEW STATE OF THE ART COMPUTER TO INCREASE MEAN TIME BETWEEN FAILURE AND REDUCE LOGISTICS SUPPORT COST. THE INCREASED PROCESSING SPEED AND MEMORY CAPACITY WILL ENHANCE MISSION PERFORMANCE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	5	11.1	119	12.9	138	14.0					262	38.0
BASIS FOR COST ESTIMATE:												
NONRECURRING	5	5.9									5	5.9
KITS			119	12.9	138	13.1					257	26.0
DATA		.4										.4
TRAINER						.9						.9
SUPPORT EQUIP.		4.8										4.8
TOTAL	5	11.1	119	12.9	138	14.0					262	38.0

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 14 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: REPLACE WHEEL WELL POWER LINES, MN-32046A

MODELS OF AIRCRAFT AFFECTED: F-111

DESCRIPTION/JUSTIFICATION: DURING THE PERIOD FEB 76-JUL 81 ONE AIRCRAFT WAS DESTROYED, TWO WERE SEVERELY DAMAGED, AND ONE SUFFERED MINOR DAMAGE FROM FIRE CAUSED BY CHAFING OF WIRING AND HYDRAULIC LINES. THIS PROGRAM PROVIDES PERMANENT SEPARATION OF FLUID CARRYING LINES AND ELECTRICAL WIRING IN THE MAIN WHEEL WELL. A CONFIGURATION INTEGRITY GUIDE WILL BE DEVELOPED TO SHOW CLAMPING, ROUTING AND CRITICAL SEPARATION POINTS FOR FLUID LINES AND WIRING.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			2	1.3	185	4.7	170	1.9			357	7.9
BASIS FOR COST ESTIMATE:												
NONRECURRING			2	1.0							2	1.0
KITS					135	2.0	170	1.9			355	3.9
DATA				.3		2.7						3.0
TOTAL			2	1.3	185	4.7	170	1.9			357	7.9

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/DEPOT TEAM(S)
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: F/FB-111 AVIONICS MODERNIZATION PROGRAM

MODELS OF AIRCRAFT AFFECTED: F-111

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION PROVIDES A RELIABILITY AND MAINTAINABILITY IMPROVEMENT TO THE F/FB-111 AVIONICS SUB-SYSTEMS. THE PROGRAM INCLUDES UPGRADES TO THE INERTIAL NAVIGATION SYSTEM, TERRAIN FOLLOWING RADAR, ATTACK RADAR, DOPPLER RADAR AND CONTROLS/DISPLAYS. ONCE COMPLETE THE UPGRADES WILL PROVIDE A FOUR FOLD INCREASE IN MTBF, IMPROVED SORTIE RATES AND IMPROVED PROBABILITY OF KILL.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					12.4		104	181.3	271	582.9	375	776.6

BASIS FOR COST ESTIMATE:

NONRECURRING							10.8		61.0			71.8
KITS							104	113.0	271	465.1	375	578.1
DATA								3.8	14.5			18.3
SUPPORT EQUIP.								25.6	37.8			63.4
TOOLING					9.2			21.5				29.7
TRAINER/SIMULA.								6.6	4.5			11.1
SOFT. SUPP FAC					4.2							4.2
TOTAL					12.4		104	181.3	271	582.9	375	776.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/CFT
LEAD TIME - 24 MON HS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ELECTRONIC WARFARE SYSTEM

MODELS OF AIRCRAFT AFFECTED: TR-1

DESCRIPTION/JUSTIFICATION: THE ELECTRONIC WARFARE SYSTEM (EWS) TO BE INCORPORATED IS BEING DEVELOPED TO MEET THE THREATS DEFINED IN THE MARCH 1982 TR-1 MISSION SURVIVABILITY REPORT. THE EWS WILL BEGIN DEVELOPMENT IN FY83 AND WILL BE FLIGHT TESTED ON THE U-2 IN FY84.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
							13	9.8	5	4.4	18	14.2
BASIS FOR COST ESTIMATE:												
NONRECURRING								.1				.1
KITS							13	9.4	5	4.4	18	13.8
DATA								.1				.1
SUPPORT EQUIP.								.2				.2
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL							13	9.8	5	4.4	18	14.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/CPT
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MISSION EQUIPMENT THREAT UPDATE

MODELS OF AIRCRAFT AFFECTED: IR-1

DESCRIPTION/JUSTIFICATION: THE IR-1'S PEACETIME MISSION REQUIRES IT TO PERFORM TIME AND THREAT SENSITIVE FLIGHTS. THIS MODIFICATION PROVIDES FUNDING TO MODIFY THE PRIME MISSION EQUIPMENT SENSORS TO COUNTER CHANGES IN THREAT.

SCOPE OF PROGRAM:

PRIOR	FY-83	FY-84	FY-85	OUTYEAR	T O T A L
QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST
---	---	---	---	---	---
		9 2.0	12 2.0		21 4.0

BASIS FOR COST ESTIMATE:

NONRECURRING			.1	.1	.2
KITS		9 1.5	12 1.5		21 3.0
DATA		.2	.2		.4
SUPPORT EQUIP.		.2	.2		.4
	---	---	---	---	---
TOTAL		9 2.0	12 2.0		21 4.0

METHOD OF IMPLEMENTATION: INSTALLATION - DPPOT
LEAD TIME - 1 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ATTITUDE INDICATOR REPLACEMENT, MN-21119A

MODELS OF AIRCRAFT AFFECTED: A/T-37

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION REPLACES THE PRESENT ATTITUDE SYSTEM WITH A DC DRIVEN GYRO INDICATOR. THE CURRENT ATTITUDE SYSTEM IS FAILURE PRONE AND HAS CONTRIBUTED TO SEVERAL AIRCRAFT LOSSES IN 1980 AND 1981. THE INCREASING FAILURE RATE REQUIRES REPLACEMENT TO ASSURE SAFE OPERATION OF THE AIRCRAFT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
BASIS FOR COST ESTIMATE:			521	2.3	262	2.0					783	4.3
KITS			521	2.3	262	1.4					783	3.7
TRAINER						.6						.6
TOTAL			521	2.3	262	2.0					783	4.3

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 9 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: VINSON SECURE VOICE, MN-3025

MODELS OF AIRCRAFT AFFECTED: C-5A

DESCRIPTION/JUSTIFICATION: VINSON SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF VHF/UHF AM/FM HALF-DUPLEX RADIO FOR ALL CLASSIFICATION OF TRAFFIC. THE TSEC/KY-58 IS DESIGNED FOR OPERATION IN AIRCRAFT INSTRUMENT PANELS OR RADIO-CONSOLE CONTROL PANELS, OR IT MAY BE LOCATED IN EQUIPMENT BAYS AND OPERATED BY A REMOTE CONTROL UNIT (RCU).

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	2	1.0	36	3.4	39	2.2					77	6.6
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	.7									1	.7
KITS	1	.1	36	2.0	39	2.2					76	4.3
DATA		.2										.2
TRAINER				1.4								1.4
TOTAL	2	1.0	36	3.4	39	2.2					77	6.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: PARKHILL SECURE VOICE, MN-3063

MODELS OF AIRCRAFT AFFECTED: C-5A

DESCRIPTION/JUSTIFICATION: PARKHILL SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF HF NARROW BAND FREQUENCY RANGES UP TO THE SECRET LEVEL. THE TSEC/KY-75 IS DESIGNED FOR OPERATION IN ALL AIRCRAFT APPLICATIONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	2	.9	36	2.9	39	2.0					77	5.8
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	.6									1	.6
KITS	1	.1	36	1.8	39	2.0					76	3.9
DATA		.2										.2
TRAINER				1.1								1.1
TOTAL	2	.9	36	2.9	39	2.0					77	5.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: 50 KHZ VOR/ILS

MODELS OF AIRCRAFT AFFECTED: C-5

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION REPLACES CURRENTLY INSTALLED VHF OMNI-DIRECTIONAL RANGE/INSTRUMENT LANDING SYSTEMS (VOR/ILS) TO PROVIDE A CAPABILITY TO READ SIGNALS FROM VOR/ILS GROUND EQUIPMENT BEING INSTALLED IN THE U.S. AND EUROPE WITH 50 KHZ CHANNEL SEPARATION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					47	2.7	24	1.1	6	.4	77	4.2
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	.2					1	.2
KITS					46	1.9	24	1.1	6	.4	76	3.4
DATA						.4						.4
SUPPORT EQUIP.						.2						.2
TOTAL					47	2.7	24	1.1	6	.4	77	4.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: H-WING MODIFICATION, MM-18238B

MODELS OF AIRCRAFT AFFECTED: C-5

DESCRIPTION/JUSTIFICATION: THE CURRENT C-5 WINGS HAVE AN ESTIMATED 7,100 HOUR SERVICE LIFE. THE FIRST C-5A WILL REACH ITS SERVICE LIFE BY 1982 UNLESS MODIFIED. THIS MODIFICATION WILL INSTALL A NEW CENTER, INNER AND OUTER WING TO EXTEND THE C-5A LIFE BY 30,000 FLYING HOURS OPERATING AT A 200,000 POUND NORMAL PAYLOAD.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	34	441.8	18	188.7	24	246.6					76	877.1
NONRECURRING		8.0		3.3		4.3						15.6
KITS	34	367.1	18	152.5	24	196.0					76	715.6
DATA		1.4		.6		.7						2.7
TOOLING		30.9		7.0		9.2						47.1
OTHER		34.4		25.3		36.4						96.1
TOTAL	34	441.8	18	188.7	24	246.6					76	877.1

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 30 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: NOSE LANDING GEAR DOOR IMPROVEMENT, MN-22166A

MODELS OF AIRCRAFT AFFECTED: C-5A

DESCRIPTION/JUSTIFICATION: TO OPEN THE NOSE LANDING GEAR DOORS IN EMERGENCY, A COMPLEX SHIFTING ACTION MUST TAKE PLACE. ON SEVERAL OCCASIONS THE SHIFTING MECHANISM FAILED AND A GEAR UP LANDING OCCURRED. THIS MODIFICATION SIMPLIFIES THE MECHANISM TO ELIMINATE THIS PROBLEM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			1	1.5	38	3.7	38	3.8			77	9.0
BASIS FOR COST ESTIMATE:												
NONRECURRING			1	.8							1	.8
KITS					38	3.4	38	3.5			76	6.9
DATA				.7								.7
MOD OF SPARES						.3						.3
SIMULATORS								.3				.3
TOTAL			1	1.5	38	3.7	38	3.8			77	9.0

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 20 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: VINSON TAC SECURE VOICE, MN-3025

MODELS OF AIRCRAFT AFFECTED: C-141A/B

DESCRIPTION/JUSTIFICATION: VINSON SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF VHF/UHF AM/FM HALF-DUPLEX RADIO FOR ALL CLASSIFICATION OF TRAFFIC. THE TSEC/KY-58 IS DESIGNED FOR OPERATION IN AIRCRAFT INSTRUMENT PANELS OR RADIO-CONSOLE CONTROL PANELS, OR IT MAY BE LOCATED IN EQUIPMENT BAYS AND OPERATED BY A REMOTE CONTROL UNIT (RCU).

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	34	1.5	84	2.4	150	3.9					268	7.8
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	.3									1	.3
KITS	33	.9	84	2.0	150	3.9					267	6.8
DATA		.3										.3
TRAINER				.4								.4
TOTAL	34	1.5	84	2.4	150	3.9					268	7.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 21 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SKE ENHANCEMENT, MU-3033

MODELS OF AIRCRAFT AFFECTED: C-141B

DESCRIPTION/JUSTIFICATION: PROCURES NEW STATION KEEPING EQUIPMENT (SKE) TO PROVIDE IMPROVED FORMATION POSITIONING, CONTROL, AND AIRDROP IN ADVERSE WEATHER CONDITIONS. THE NEW EQUIPMENT WILL ELIMINATE HAZARDOUS FREQUENCY INTERFERENCE INHERENT IN PRESENT EQUIPMENT. THE EQUIPMENT WILL BE ADDED TO 79 UNMODIFIED AIRCRAFT AND WILL BE USED TO UPGRADE 63 AIRCRAFT THAT NOW HAVE OLDER EQUIPMENT THAT DISPLAY FALSE TARGETS ON STATION KEEPING SCOPES, AND GIVES FALSE PROXIMITY WARNINGS AND INCORRECT SYSTEM PROBLEM WARNING INDICATIONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	51	21.3	66	13.8	25	6.2					142	41.3
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	3.0									1	3.0
KITS	50	13.4	66	13.8	25	6.2					141	33.4
DATA		1.9										1.9
SUPPORT EQUIP.		3.0										3.0
TOTAL	51	21.3	66	13.8	25	6.2					142	41.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 14 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: PARKHILL TAC SECURE VOICE, MN-3063

MODELS OF AIRCRAFT AFFECTED: C-141A/B

DESCRIPTION/JUSTIFICATION: PARKHILL SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF HF
NARROW BAND FREQUENCY RANGES UP TO THE SECRET LEVEL. THE TSEC/KY-75 IS DESIGNED FOR OPERATION
IN ALL AIRCRAFT APPLICATIONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	34	1.4	84	2.3	150	3.7					268	7.4
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	.2									1	.2
KITS	33	.9	84	2.1	150	3.7					267	6.7
DATA		.1										.1
TRAINER		.2		.2								.4
TOTAL	34	1.4	94	2.3	150	3.7					268	7.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 21 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: 50 KHZ VOXZELS

MODIFICATION AIRCRAFT AFF CODE: 111

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION REPLACES CURRENTLY INSTALLED VHF OMNI-DIRECTIONAL
RADIO/INSTRUMENT LANDING SYSTEMS (VOR/ILS) TO PROVIDE A CAPABILITY TO READ SIGNALS FROM
VOXZELS GROUND EQUIPMENT BEING INSTALLED IN THE U.S. AND EUROPE WITH 50 KHZ CHANNEL
SEPARATION.

1. COST DATA:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
ORIGINAL COST SUMMARY:					125	4.7	88	3.7	57	2.0	270	10.4
MODIFICATION					1	.1					1	.1
PLUS					124	4.5	88	3.7	57	2.0	269	10.2
MINUS						.1						.1
TOTAL					125	4.7	88	3.7	57	2.0	270	10.4

2. FUNDING DATA: 1. FUNDING - DEPOT/FIELD 1 AM
2. FUNDING - 12 % G11

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALUMINUM FLT CONTROLS, MN-12201A

MODELS OF AIRCRAFT AFFECTED: T-38

DESCRIPTION/JUSTIFICATION: THERE ARE TWENTY-SIX INDIVIDUAL MAGNESIUM COMPONENTS IN THE T-38 FLIGHT CONTROL SYSTEM FOR WHICH SINGLE MODE FAILURE COULD CAUSE A CATASTROPHIC MISHAP. CURRENT DESIGN SPECIFICATIONS FORBID USE OF MAGNESIUM ALLOYS IN FLIGHT CONTROL SYSTEMS. DURING INVESTIGATION OF A T-38 MAJOR ACCIDENT, LABORATORY ANALYSIS OF A CAST MAGNESIUM COMPONENT OF THE FLIGHT CONTROL SYSTEM REVEALED STRESS CORROSION CRACKING HAD PROGRESSED 60 TO 80% THROUGH ONE OF THE FRACTURE SURFACES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					42	.9	310	4.0	480	6.9	832	11.8
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	.4					1	.4
KITS					41	.5	310	4.0	480	6.9	831	11.4
DATA						*						*
TOTAL					42	.9	310	4.0	480	6.9	832	11.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 17 MONTHS

* LESS THAN \$ 50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: INSTRUMENT FLIGHT SIMULATOR

MODELS OF AIRCRAFT AFFECTED: T-38

DESCRIPTION/JUSTIFICATION: TERRAIN MODEL BOARDS USED IN THE INSTRUMENT FLIGHT SIMULATOR HAVE A LOW RELIABILITY AND ARE RAPIDLY BECOMING NON-SUPPORTABLE. REPLACEMENT WITH A CURRENT STATE-OF-THE-ART COMPUTER GENERATED IMAGERY VISUAL CAPABILITY WILL ENHANCE GROUND TRAINING AND WILL RESULT IN REDUCED LIFE CYCLE COSTS.

SCOPE OF PROGRAM:

PRIOR	FY-83	FY-84	FY-85	OUTYAR	T O T A L
QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST
			10 12.0	4 3.2	14 15.2

BASIS FOR COST ESTIMATE:

NONRECURRING		1 4.5		1 4.5
KITS		9 5.0	4 3.2	13 8.2
DATA		1.5		1.5
SUPPORT EQUIP.		1.0		1.0
TOTAL		10 12.0	4 3.2	14 15.2

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR/FIELD TEAM
LEAD TIME - 22 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ALE-40 FLARE SYSTEM, NM-3004

MODELS OF AIRCRAFT AFFECTED: C-130E (SKE EQUIPPED)

DESCRIPTION/JUSTIFICATION: INSTALLS ALE-40 CHAFF/FLARE DISPENSER IN C-130 AIRCRAFT TO IMPROVE OPERATIONAL SURVIVAL.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
	8	1.9			101	5.6	156	8.0	96	5.1	361	20.6
BASIS FOR COST ESTIMATE:												
NONRECURRING	4	.4									4	.4
KITS	4	.5			101	5.6	156	8.0	96	5.1	357	19.2
DATA		*										*
SUPPORT EQUIP.		1.0										1.0
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL	8	1.9			101	5.6	156	8.0	96	5.1	361	20.6

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

* LESS THAN \$ 50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: VINSON TAC SECURE VOICE, MM-3025

MODELS OF AIRCRAFT AFFECTED: C-130

DESCRIPTION/JUSTIFICATION: VINSON SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF VHF/UHF AM/FM HALF-DUPLEX RADIO FOR ALL CLASSIFICATION OF TRAFFIC. THE TSEC/KY-58 IS DESIGNED FOR OPERATION IN AIRCRAFT INSTRUMENT PANELS OR RADIO-CONSOLE CONTROL PANELS, OR IT MAY BE LOCATED IN EQUIPMENT BAYS AND OPERATED BY A REMOTE CONTROL UNIT (RCU).

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	81	3.5	216	8.1	216	8.0	235	4.5			748	24.1
BASIS FOR COST ESTIMATE:												
NONRECURRING	11	1.6									11	1.6
KITS	70	1.7	216	5.1	216	6.1	235	4.5			737	17.4
DATA		.2										.2
TRAINER						1.9						1.9
USC-15 CAPSULE				3.0								3.0
TOTAL	81	3.5	216	8.1	216	8.0	235	4.5			748	24.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SKE ENHANCEMENT, MH-3033

MODELS OF AIRCRAFT AFFECTED: C-130

DESCRIPTION/JUSTIFICATION: PROCURES NEW EQUIPMENT TO PROVIDE IMPROVED FORMATION POSITIONING, CONTROL, AND AIRDROP IN ADVERSE WEATHER CONDITIONS. THE NEW EQUIPMENT WILL ELIMINATE HAZARDOUS FREQUENCY INTERFERENCE INHERENT IN PRESENT EQUIPMENT. THIS EQUIPMENT REPLACES THE OLDER EQUIPMENT THAT DISPLAYS FALSE TARGETS ON STATION KEEPING SCOPES AND GIVES FALSE PROXIMITY WARNINGS AND INCORRECT SYSTEM PROBLEM INDICATIONS.

SCOPE OF PROGRAM

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
			6	2.1	106	20.8	180	27.1	86	16.9	378	66.9
BASIS FOR COST ESTIMATE:												
NONRECURRING			3	.8							3	.8
KITS			3	.3	106	12.7	180	23.9	86	13.6	375	50.5
DATA				.5								.5
TRAINING				.5		.7						1.2
SUPPORT EQUIP						3.4		3.2	3.3			9.9
NOO OF SPARE						4.0						4.0
TOTAL			6	2.1	106	20.8	180	27.1	86	16.9	378	66.9

REMARKS ON INCURRED COST: INSTALLATION - DEPOSIT/FIELD TRNG
LIFE TIME - 17 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: PARKHILL TAC SECURE VOICE, MN-3063

MODELS OF AIRCRAFT AFFECTED: C-130

DESCRIPTION/JUSTIFICATION: PARKHILL SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF HF NARROW BAND FREQUENCY RANGES UP TO THE SECRET LEVEL. THE TSEC/KY-75 IS DESIGNED FOR OPERATION IN ALL AIRCRAFT APPLICATIONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	81	3.5	216	5.4	216	8.5	235	7.8			748	25.2
NONRECURRING	11	1.5									11	1.5
KITS	70	1.8	216	5.4	216	6.6	235	7.8			737	21.6
DATA		.2										.2
TRAINER						1.9						1.9
TOTAL	81	3.5	216	5.4	216	8.5	235	7.8			748	25.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HC-130H TANKER CONVERSION

MODELS OF AIRCRAFT AFFECTED: HC-130

DESCRIPTION/JUSTIFICATION: CONVERTS 20 HC-130H AIRCRAFT TO TANKER CONFIGURATION. ENHANCES TANKER CAPABILITY TO INFLIGHT REFUEL COMBAT RESCUE AND SOF HEAVY-LIFT HELICOPTER FOR WARTIME AND CONTINGENCY TASKING THUS IMPROVING HC-130 UTILITY AND FLEXIBILITY FOR THE COMBAT RESCUE MISSION.

SCOPE OF PROGRAM:

	PRICR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					2	1.5	6	4.5	12	10.1	20	16.1
BASIS FOR COST ESTIMATE:												
NONRECURRING						.1						.1
KITS					2	1.4	6	4.5	12	10.1	20	16.0
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
TOTAL					2	1.5	6	4.5	12	10.1	20	16.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPGT
LEAD TIME - 9 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SELF CONTAINED NAVIGATION SYSTEM (SCNS)

MODELS OF AIRCRAFT AFFECTED: C/HC/MC-130E/H

DESCRIPTION/JUSTIFICATION: EQUIPS C-130 AIRCRAFT (256 ACTIVE AIRLIFT, 41 RESCUE, 20 WEATHER, 67 RESERVE, AND 144 AIR NATIONAL GUARD WITH A SELF-CONTAINED NAVIGATION SYSTEM (SCNS). THE SYSTEM WILL ENABLE C-130S TO OPERATE WITHOUT EXTERNAL NAVIGATION AIDS--A REQUIREMENT IN BATTLE ZONES WHERE NAVIGATION AIDS WILL LIKELY BE SHUT DOWN OR JAMMED. THE SCNS WILL IMPROVE THE C-130S MISSION SUCCESS PARTICULARLY ON LOW-LEVEL MISSIONS. BECAUSE OF VARIOUS TYPES OF C-130'S INVOLVED, 3 AIRCRAFT WILL RECEIVE TRIAL INSTALLATION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					3	4.7	5	14.4	492	189.3	500	208.4
BASIS FOR COST ESTIMATE:												
NONRECURRING					3	4.7	5	5.6			8	10.3
KITS									492	189.3	492	189.3
DATA								1.5				1.5
TRAINER								5.9				5.9
SUPPORT EQUIP.								1.4				1.4
TOTAL					3	4.7	5	14.4	492	189.3	500	208.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 6 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SPECIAL OPERATIONS

MODELS OF AIRCRAFT AFFECTED: AC-130H

DESCRIPTION/JUSTIFICATION: EQUIPS TEN (10) AC-130H GUNSHIPS WITH WJ-1840 WIDEBAND RECEIVING SYSTEM, TERRAIN FOLLOWING TERRAIN AVOIDANCE (TF/TA) RADAR, PASSIVE INFRARED WARNING AND COUNTERMEASURES SYSTEMS, DIGITAL MESSAGE DEVICE GROUP (DATA BURST) SYSTEMS, IMPROVED INERTIAL NAVIGATION SYSTEMS, AND EXTENDED FLIGHT REQUIREMENTS (CLOSURES FOR PRESSURIZATION).

SCOPE OF PROGRAM:

PRIOR	FY-83	FY-84	FY-85	OUTYEAR	T O T A L
QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST
---	---	---	---	---	---
		2 10.1	3 13.2	5 9.7	10 33.0

BASIS FOR COST ESTIMATE:

NONRECURRING		1 5.1			1 5.1
KITS		1 3.6	3 13.2	5 9.7	9 26.5
DATA		1.4			1.4
	-----	-----	-----	-----	-----
TOTAL		2 10.1	3 13.2	5 9.7	10 33.0

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SPECIAL OPERATIONS

MODELS OF AIRCRAFT AFFECTED: MC-130E

DESCRIPTION/JUSTIFICATION: EQUIPS FOURTEEN (14) MC-130E COMBAT TALONS WITH INFRARED WARNING RECEIVERS, DIGITAL MESSAGE DEVICE GROUP (DATA BURST), IMPROVED INERTIAL NAVIGATIONS SYSTEMS, AND EXTENDED FLIGHT REQUIREMENTS (PRESSURIZATION/AIR CONDITIONING SYSTEM IMPROVEMENTS). TEN (10) OF THESE AIRCRAFT WILL RECEIVE WJ-1840 WIDEBAND RECEIVING SYSTEMS AND IMPROVED ELECTRONIC COUNTERMEASURES SYSTEMS. FIVE (5) OF THESE AIRCRAFT WILL RECEIVE FORWARD LOOKING INFRARED (FLIR) SYSTEMS.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	----	---	----	---	----	---	----	---	----	---	----
				6	19.6	5	21.3	3	6.3	14	47.2

BASIS FOR COST ESTIMATE:

NONRECURRING				1	9.5					1	9.5
KITS				5	9.1	5	21.3	3	6.3	13	36.7
DATA					1.0						1.0
				---	----	---	----	---	----	---	----
TOTAL				6	19.6	5	21.3	3	6.3	14	47.2

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: 50 KHZ VOR/ILS

MODELS OF AIRCRAFT AFFECTED: C-130

DESCRIPTION/JUSTIFICATION THIS MODIFICATION REPLACES CURRENTLY INSTALLED VHF OMNI-DIRECTIONAL RANGE/INSTRUMENT LANDING SYSTEMS (VOR/ILS) TO PROVIDE A CAPABILITY TO READ SIGNALS FROM VOR/ILS GROUND EQUIPMENT BEING INSTALLED IN THE U.S. AND EUROPE WITH 50 KHZ CHANNEL SEPARATION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
BASIS FOR COST ESTIMATE:					226	5.5	248	6.9	228	7.7	702	20.1
NONRECURRING					3	.2	5	.1	5	.1	13	.4
KITS					223	5.3	243	6.5	223	7.2	689	19.0
DATA								.1		.1		.2
SUPPORT EQUIP.								.2		.3		.5
TOTAL					226	5.5	248	6.9	228	7.7	702	20.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/CONTRACTOR
LEAD TIME - 12 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: FLIGHT DATA RECORDER, MN-10603A

MODELS OF AIRCRAFT AFFECTED: C-130

DESCRIPTION/JUSTIFICATION: FOUR C-130 MISHAPS DURING 1978, EACH INVOLVING LOSS OF AIRCRAFT AND HUMAN LIFE, EMPHASIZES THE NEED FOR A RECORDER SYSTEM. WHEN ALL CREW MEMBERS SUFFER FATAL INJURIES, THE ACCIDENT INVESTIGATION BOARD MEMBERS USUALLY HAVE TO SURMISE THEIR CONCLUSIONS AS TO CAUSE OF THE ACCIDENT. ACTION OFTEN LEADS TO EXPENSIVE FORCE RETROFITS OR FORCE DOWNTIMES WHICH MAY OR MAY NOT BE NECESSARY. A RECORDER SYSTEM WILL CUT UNNECESSARY RETROFITS CAUSED BY ACCIDENT INVESTIGATION BOARD DIRECTIVES BASED UPON LIMITED DATA AND IDENTIFY NEEDED CHANGES TO PREVENT FUTURE OCCURANCES FROM THE SAME CAUSE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	14	1.1	170	7.2	240	3.1	240	8.7	65	2.6	729	27.7
BASIS FOR COST ESTIMATE:												
NONRECURRING	7	.3									7	.3
KITS	7	.2	170	5.3	240	3.1	240	8.7	65	2.6	722	24.9
DATA		.2										.2
TRAINER/SIMULA.		.0		*								.4
SUPPORT EQUIP.				1.9								1.9
TOTAL	14	1.1	170	7.2	240	3.1	240	8.7	65	2.6	729	27.7

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 8 MONTHS

* LESS THAN \$ 50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: FUEL CELL FOAM, MN-10618A

MODELS OF AIRCRAFT AFFECTED: C-130

DESCRIPTION/JUSTIFICATION: INSTALLS MIL-B-83054B (BLUE) RETICULATED POLYESTER FOAM IN ALL FUEL CELLS/TANKS. REQUIRED TO PROVIDE EXPLOSION/FIRE SUPPRESSION FROM CAUSES SUCH AS: STRAY VOLTAGE, LIGHTNING STRIKES, HOSTILE ACTION FIRES, ETC. TWO C-130 LOSSES HAVE OCCURRED DUE TO INTANK EXPLOSION WHICH MAY HAVE BEEN PREVENTED BY THE FOAM.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	217	9.7	204	8.7	204	9.3	56	2.9			681	30.6
BASIS FOR COST ESTIMATE:												
NONRECURRING	2	.3									2	.3
KITS	215	9.4	204	8.7	204	9.3	56	2.9			679	30.3
DATA		*										*
TOTAL	217	9.7	204	8.7	204	9.3	56	2.9			681	30.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/CFT
LEAD TIME - 5 MONTHS

* LESS THAN \$ 50,000

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: OUTER WING, MN-19610B

MODELS OF AIRCRAFT AFFECTED: C/HC-130B/E/H/P/N

DESCRIPTION/JUSTIFICATION: STRUCTURAL INTEGRITY DATA INDICATES REQUIREMENT FOR OUTER WING MODIFICATION DUE TO FATIGUE AND CORROSION PROBLEMS AT SEVERAL LOCATIONS ON THE WING. FAILURES HAVE OCCURRED IN THE OUTER WING LOWER FRONT BEAM CAPS, WITH RELATED CRACKS FOUND IN SPAR WEBS AND LOWER FORWARD WING SKIN PANELS AND STRESS CORROSION CRACKING HAS BEEN IDENTIFIED IN THE WING DRY BAYS. INTERIM SOLUTIONS OF REPAIRING OR REPLACING FAILED COMPONENTS HAVE BEEN IMPLEMENTED UNTIL THE WING BOXES CAN BE REPLACED. RESTRICTIONS HAVE RECENTLY BEEN IMPOSED ON GROSS WEIGHT IN CERTAIN MISSIONS UNTIL THE MOD CAN BE INSTALLED.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	81	77.7	113	83.2	82	61.5	135	117.9	84	79.0	495	419.3
BASIS FOR COST ESTIMATE:												
NONRECURRING		9.5										9.5
KITS	81	60.6	113	81.9	82	61.5	135	117.9	84	79.0	495	400.9
DATA		.3										.3
TOOLING		7.3		1.3								8.6
TOTAL	81	77.7	113	83.2	82	61.5	135	117.9	84	79.0	495	419.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/PDM
LEAD TIME - 30 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: DIVERSITY RECEPTION EQUIPMENT, MW-3067

MODELS OF AIRCRAFT AFFECTED: EC-135

DESCRIPTION/JUSTIFICATION: THE DIVERSITY RECEPTION EQUIPMENT (DRE) IS A MODIFICATION TO THE AM/ALR-96 VLF/LF SYSTEM. A TWO CHANNEL PROCESSOR WILL BE INCORPORATED TO COMBINE THE PRESENT VERTICALLY POLARIZED SIGNALS WITH THE NEW HORIZONTALLY POLARIZED SIGNALS.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
---	---	---	---	---	---	---	---	---	---	---	---
						2	5.5	26	48.4	28	54.0

BASIS FOR COST ESTIMATE:

NONRECURRING							1.9				1.9
KITS						2	3.2	26	48.4	28	51.6
DATA							.5				.5
-----						-----		-----		-----	
TOTAL						2	5.6	26	48.4	28	54.0

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: NUCLEAR HARDENING/UHF REPLACEMENT, MN-3095

MODELS OF AIRCRAFT AFFECTED: EC-135A, C, G, H, L, J, P

DESCRIPTION/JUSTIFICATION: REPLACES COMPONENTS (UHF RADIOS, MULTIPLEXER, SWITCHBOARD, INTERPHONE) WITH MINIATURIZED STATE OF THE ART, EMP HARDENED COMPONENTS ON EC-135 AIRCRAFT. TO ACCOMMODATE SUPPORTABILITY PROBLEMS WITH THE ARC-89 RADIO, AN EARLY SWAPOUT ON EC-135L AIRCRAFT WILL BE ACCOMPLISHED. FY83 FUNDS THE ARC-89 SWAPOUT ON THE EC-135L (5 ACFT), WITH INSTALLATIONS IN FY84.

SCOPE OF PROGRAM:

PRICE		FY-83		FY-84		FY 85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
			13.7	3	45.7	8	44.8	28	117.6	39	221.8

BASIS FOR COST ESTIMATE:

NONRECURRING				2	20.2	4	23.4	1	4.9	7	48.5
KITS	(5)	9.0		1	3.6	4	15.6	27	112.7	32	140.9
DATA		2.7			12.4		5.8				20.9
SUPPORT EQUIP.		2.0			9.5						11.5
TOTAL			13.7	3	45.7	8	44.8	28	117.6	39	221.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/CONTRACTOR
LEAD TIME - 20 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AFSATCOM TERMINAL UPGRADE/ARC-171

MODELS OF AIRCRAFT AFFECTED: EC-135C/H/J/P

DESCRIPTION/JUSTIFICATION: MODIFICATION PROVIDES HIGH-SPEED FREQUENCY SYNTHESIZER AND CONTROL MONITOR CIRCUIT CARDS FOR THE AN/ARC-171 AFSATCOM RECEIVER/TRANSMITTER AND NEW NARROWBAND MODERN CONTROLS. MODIFICATION REQUIRED TO IMPROVE PERFORMANCE IN A JAMMING ENVIRONMENT, PERMIT OPERATION WITH THE DSCS SINGLE CHANNEL TRANSPONDER, AND FOR TRANSITION TO MILSTAR. THIS MOD APPLIES TO WORLD WIDE AIRBORNE COMMAND POST (WWABNCP) (EC-135C/H/J/P) AIRCRAFT ONLY.

SCOPE OF PROGRAM:

	PRIC		FY-82		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					25	6.5					25	6.5
NONRECURRING						1.5						1.5
ALTS					25	4.1					25	4.1
DATA						.5						.5
SUPPORT EQUIP.						.4						.4
TOTAL					25	6.5					25	6.5

BASIS FOR COST ESTIMATE:

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 3 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AFSATCOM TERMINAL UPGRADE/CP UPGRADE

MODELS OF AIRCRAFT AFFECTED: EC-135

DESCRIPTION/JUSTIFICATION: COMMAND POST (CP) UPGRADE MODIFICATION WILL PROVIDE NEW PROCESSORS AND MODEMS, REPLACE THE HIGH POWER AMPLIFIER, AND INSTALL THE KI-35 TRANSEC DEVICE. REQUIRED FOR IMPROVED PERFORMANCE IN A JAMMING ENVIRONMENT, OPERATION WITH THE DSCS SINGLE CHANNEL TRANSPONDER, AND FOR TRANSITION TO MILSTAR.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
						5	13.2	20	21.3	25	34.5

BASIS FOR COST ESTIMATE:

NONRECURRING							3.0				3.0
KITS						5	5.5	20	21.3	25	26.8
DATA							2.7				2.7
SUPPORT EQUIP.							2.0				2.0
TOTAL						5	13.2	20	21.3	25	34.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AFSATCOM TERMINAL UPGRADE/DUAL MODEM MOD

MODELS OF AIRCRAFT AFFECTED: KC-135

DESCRIPTION/JUSTIFICATION: MODIFICATION PROVIDES PRINTED CIRCUIT BOARDS FOR THE AFSATCOM TERMINAL DUAL MODEM. MODIFICATION REQUIRED TO TRANSITION THESE TERMINALS TO MILSTAR, RESOLVE A POTENTIAL FREQUENCY INTERFERENCE PROBLEM, CORRECT FOT&E DEFICIENCIES AND TO PROVIDE PROPER FREQUENCY-HOPPING ALGORITHM FOR COMPATIBILITY WITH CHANGES BEING MADE TO THE AFSATCOM SATELLITE TRANSPONDER

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							18	2.0			18	2.0
BASIS FOR COST ESTIMATE:												
NONRECURRING								.6				.6
KITS							18	1.1			18	1.1
DATA								.2				.2
TRAINER								.1				.1
TOTAL							18	2.0			18	2.0

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 11 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SECURE DATA TERMINAL

MODELS OF AIRCRAFT AFFECTED: EC-135, C, H, J, P

DESCRIPTION/JUSTIFICATION: PROVIDES FOR AN IMPROVED SECURE DATA TERMINAL THAT WILL SUPPORT HIGH-SPEED CONNECTIVITY WITH THE AUTODIN NETWORK, IMPROVED ERROR DETECTION/CORRECTION ON DATA TRANSMISSIONS AND HIGH-SPEED DATA TRANSFER BETWEEN AIRCRAFT.

SCOPE OF PROGRAM:

	PRIOR	FY-83	FY-84	FY-85	OUTYEAR	T O T A L	
	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	QTY COST	
	---	---	---	---	---	---	---
				0 10.8	21 16.5	25	27.3
BASIS FOR COST ESTIMATE:							
NONRECURRING				1 4.7	3 4.1	4	8.8
KITS				3 1.4	18 8.5	21	9.9
DATA					2.1		4.6
SUPPORT EQUIP.					1.8		4.0
TOTAL				4 10.8	21 16.5	25	27.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SECURE VOICE CONFERENCING

MODELS OF AIRCRAFT AFFECTED: EC-135, S, U, J, P

DESCRIPTION/JUSTIFICATION: PROVIDES FOR A MODIFICATION TO SUPPORT SECURE VOICE CONFERENCING VIA THE AFSALCOM TYPE III TERMINAL.

SCOPE OF PROGRAM:

	PRIC.		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					5	5.9	8	10.2	12	7.2	25	23.3
BASIS FOR COST ESTIMATES:												
NONRECURRING					1	3.0	1	.4	2	.7	4	4.1
WATS					4	1.0	7	8.1	10	4.3	21	13.4
DATA						1.1		1.3		1.4		3.8
SUPPORT EQUIP.						.8		.4		.8		2.0
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL					5	5.9	8	10.2	12	7.2	25	23.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 13 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: RE-ENGINE CFM-56(MYP)

MODELS OF AIRCRAFT AFFECTED: KC-135 A/Q

DESCRIPTION/JUSTIFICATION: RE-ENGINEING THE KC-135, ALONG WITH LANDING GEAR AND OTHER CONCURRENT MODIFICATIONS, WILL EXTEND ITS USEFUL LIFE INTO THE 21ST CENTURY. THE MODIFICATION WILL REDUCE FUEL CONSUMPTION BY 25% AND ALLOW TAKEOFF WITH LARGER FUEL LOADS, THUS PERMITTING OFFLOAD OF MORE FUEL TO RECEIVER AIRCRAFT. THE RE-ENGINE KC-135 WILL HAVE THE CAPABILITY OF 1.5 CURRENT KC-135A'S. THE NEW HIGH TECHNOLOGY CFM-56 ENGINE WILL RELIEVE CURRENT NOISE AND EMISSIONS PROBLEMS CURRENTLY ENCOUNTERED AND COMPLY WITH 1985 FAA AND EPA NOISE AND EMISSION STANDARDS. FY1984 REPRESENTS THE INITIAL YEAR OF A 5 YEAR MULTIYEAR CONTRACT WITH ECONOMIC ORDER QUANTITIES OF AIRFRAME KIT QUANTITIES.

SCOPE OF PROGRAM:

	PRIOR QTY COST	FY-83 QTY COST	FY-84 QTY COST	FY-85 QTY COST	OUTYEAR QTY COST	T C T A L QTY COST
BASIS FOR COST ESTIMATE:	10 340.0	19 371.9	31 875.8	65 1382.6	209 3963.5	334 6933.8
NONRECURRING	26.0					26.0
KITS	10 136.5	19 185.5	31 280.2	65 514.5	209 1732.6	334 2849.3
DATA	4.7	23.2				27.9
TRAINING	7.8	1.6	1.6			11.0
SUPPORT EQUIP.	2.5	10.0	26.1	105.5	126.4	270.5
TOOLING	78.0	13.0	27.8	24.3	7.2	150.3
ENGINE	(40) 74.5	(76) 134.6	(124) 299.8	(260) 662.0	(836) 2427.9	(1336) 3598.8
TOTAL	330.0	367.9	635.5	1306.3	4294.1	6933.8
LESS: ADVANCE PROCUREMENT (PY)	-11.5	-10.0	-14.0	-166.1	-610.0	-811.6
NET	318.5	357.9	621.5	1140.2	3684.1	6122.2
ADVANCE PROCUREMENT (CY)	21.5	14.0	254.3	242.4	279.4	811.6
TOTAL PROGRAM	10 340.0	19 371.9	31 875.8	65 1382.6	209 3963.5	334 6933.8

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 30 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SELSCAN HF CAPABILITY

MODELS OF AIRCRAFT AFFECTED: EC-135, A, G, L, H, J, P, C

DESCRIPTION/JUSTIFICATION: PROVIDES SELSCAN EQUIPMENT FOR ARC-190 HF RADIOS. THIS EQUIPMENT PROVIDES FOR AUTOMATED FREQUENCY MANAGEMENT OF HF NETWORKS WHICH IMPROVES CONNECTIVITY.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
							5	2.0	34	6.6	39	8.6
BASIS FOR COST ESTIMATE:												
NONRECURRING							1	.2	5	.6	6	.8
KITS							4	.8	29	3.6	33	4.6
DATA								.9		2.2		3.1
SUPPORT EQUIP.								.1				.1
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL							5	2.0	34	6.6	39	8.6

METHOD OF IMPLEMENTATION: INSTALLATION - FIELD TEAM
LEAD TIME - 11 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: STANDARD VHF AM/FM RADIO

MODELS OF AIRCRAFT AFFECTED: C/KC/EC/RC/WC-135

DESCRIPTION/JUSTIFICATION: SELECTED AIRCRAFT ARE AFFECTED BY THE FAA AND THE INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) IMPLEMENTATION ON 1 JANUARY 1977 OF 25KHZ CHANNEL COMMUNICATION WHERE VHF/AM IS THE PRIMARY FREQUENCY BAND FOR CIVILIAN/MILITARY AIR TRAFFIC CONTROL. THIS MODIFICATION WILL PROVIDE FOR IMPROVED RELIABILITY AND MAINTAINABILITY AND MEETS FAA/ICAO REQUIREMENTS. C-135 AIRCRAFT ARE OPERATING UNDER WAIVERS AT CERTAIN LOCATIONS AT PRESENT.

SCOPE OF PROGRAM:

PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
				145	3.2	167	4.1	353	7.2	665	14.5

BASIS FOR COST ESTIMATE:

NONRECURRING				2	.5					2	.5
KITS				143	2.5	167	3.2	353	7.2	663	12.9
TRAINING							.9				.9
SUPPORT EQUIP.					.2						.2
TOTAL				145	3.2	167	4.1	353	7.2	665	14.5

METHOD OF IMPLEMENTATION: INSTALLATION - TELPOT/COM
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: USCINCEUR REGENCY NET

MODELS OF AIRCRAFT AFFECTED: EC-135

DESCRIPTION/JUSTIFICATION: PROVIDES FOR COMMAND AND CONTROL OF TACTICAL NUCLEAR FORCES IN THE EUROPEAN THEATER THROUGH HF/SSB TO INCLUDE ANTI-JAM AND ELECTRONIC WARFARE PROTECTION.

SCOPE OF PROGRAM:

	PRICR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							1	4.5	3	9.0	4	13.5
BASIS FOR COST ESTIMATE:												
NONRECURRING							1	4.5			1	4.5
KITS									3	7.0	3	7.0
SUPPORT EQUIP.										2.0		2.0
TOTAL							1	4.5	3	9.0	4	13.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: FUEL SAVINGS ADVISORY SYSTEM, MN-10402B

MODELS OF AIRCRAFT AFFECTED: C-135

DESCRIPTION/JUSTIFICATION: INSTALLS AN OFF-THE-SHELF FUEL SAVINGS ADVISORY SYSTEM. DECLINING OIL RESERVES AND INCREASING FUEL COSTS DICTATE FUEL CONSERVATION TO THE MAXIMUM EXTENT POSSIBLE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	342	47.5	360	36.3	24	3.0					726	86.8
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	1.1									1	1.1
KITS	341	36.0	360	36.3	24	2.8					725	75.1
DATA		2.2				.2						2.4
SUPPORT EQUIP.		7.6										7.6
TRAINER		.6										.6
TOTAL	342	47.5	360	36.3	24	3.0					726	86.8

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: LIFE EXTENSION-WING RESKIN, MN-14302B

MODELS OF AIRCRAFT AFFECTED: C-135

DESCRIPTION/JUSTIFICATION: SERVICE LIFE OF C-135 AIRCRAFT IS 8,500 TANKER EQUIVALENT FLYING HOURS. REPLACEMENT OF LOWER WING SKIN IS REQUIRED TO ALLOW THE AIRCRAFT TO MEET PROGRAMMED SERVICE LIFE. FLIGHT RESTRICTIONS HAVE BEEN PLACED ON ALL AIRCRAFT EXCEEDING 8,500 FLIGHT HOURS. MODIFICATION INSTALLS 2024-T351 MATERIAL WHICH HAS SUPERIOR CRACK TOLERANCE CHARACTERISTICS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	461	173.9	72	45.5	72	47.5	72	50.9	72	56.1	749	373.9
BASIS FOR COST ESTIMATE:												
NONRECURRING		1.0										1.0
KITS	461	170.5	72	45.5	72	47.5	72	50.9	72	56.1	749	370.5
DATA		.5										.5
TOOLING		1.9										1.9
TOTAL	461	173.9	72	45.5	72	47.5	72	50.9	72	56.1	749	373.9

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 22 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION. AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CSA/APM REPLACEMENT, MN-61052B

MODELS OF AIRCRAFT AFFECTED: EC-135

DESCRIPTION/JUSTIFICATION: COMM SYSTEM ANALYZER/AIRBORNE PERFORMANCE MONITOR UNITS ARE SUPPORT EQUIPMENTS USED TO TEST, ALIGN, AND CALIBRATE THE COMMUNICATIONS SYSTEMS ON EC-135 WORLDWIDE AIRBORNE COMMAND POST AIRCRAFT. CURRENT UNITS ARE UNSUPPORTABLE DUE TO PARTS BEING NON-PROCURABLE. MODIFICATION WILL REPLACE THE CSA/APM WITH STATE-OF-THE ART UNITS WHICH WILL PROVIDE MORE RELIABLE AND ACCURATE TEST/ANALYSIS/CALIBRATION.

SCOPE OF PROGRAM

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIC FOR COST ESTIMATE:					27	2.3					27	2.3
NONRECORDING					2	.4					2	.4
KIIS					25	1.5					25	1.5
DATA						.4						.4
TOTAL					27	2.3					27	2.3

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 14 MONTHS

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: ELECTRONIC SECURITY SYSTEMS IMP, MN-3121

MODELS OF AIRCRAFT AFFECTED: E-3A

**DESCRIPTION/JUSTIFICATION: THIS PROGRAM IS CLASSIFIED AND RESTRICTED ACCESS. DETAILS WILL BE
FURNISHED ON A NEED TO KNOW BASIS.**

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	6	5.0	24	17.5	4	3.0					34	25.5
KITS	6	5.0	24	17.5	4	3.0					34	25.5
TOTAL	6	5.0	24	17.5	4	3.0					34	25.5

**METHOD OF IMPLEMENTATION: INSTALLATION - FIELD TEAM
LEAD TIME - 9 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: BLOCK 20/25 IMPROVEMENTS, HH-3128

MODELS OF AIRCRAFT AFFECTED: E-3A

DESCRIPTION/JUSTIFICATION: ENHANCES E-3A CAPABILITY BY PROVIDING A JOINT TACTICAL INFORMATION DISTRIBUTION SYSTEM TERMINAL, ADDITIONAL SITUATION DISPLAY CONSOLES, 5 ADDED UHF RADIOS, AN ADDITIONAL HF RADIO, AND EXPANDED COMPUTER MEMORY (INCLUDES CC-2 COMPUTER). INCORPORATES A STANDARD CONFIGURATION TRAINING CAPABILITY IN THE DATA PROCESSOR/DISPLAY MAINTENANCE SIMULATION SET (DP/DHSS) AND BRINGS DATA DISPLAY TRAINING SET, COMMUNICATION MAINTENANCE TRAINER, AND DP/DHSS TO BLOCK 20/25 CONFIGURATION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
		12.9	11	110.8	14	153.8	7	82.5			32	360.0
BASIS FOR COST ESTIMATE:												
KITS			11	102.4	14	144.2	7	77.6			32	324.2
DATA				1.3		1.0		.6				.9
TRAINER		8.0		4.9		4.4		4.2				22.4
SUPPORT EQUIP.		4.0		2.2		4.2		.1				10.5
	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL		12.9	11	110.8	14	153.8	7	82.5			32	360.0

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 27 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: MISSION SIMULATOR IMPROVEMENT PROGRAM

MODELS OF AIRCRAFT AFFECTED: E-3A

DESCRIPTION/JUSTIFICATION: UPGRADES MISSION SIMULATOR IN AREAS OF SENSOR AND COMMUNICATIONS MANAGEMENT AND WEAPONS SIMULATIONS SUPPORT. CORRECTS TRAINING LIMITATIONS BY IMPROVING SIMULATION REALISM, INCREASING OPERATOR CONTROL AND UPGRADING SYSTEM RESPONSE TO STUDENT INPUTS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					1	4.5					1	4.5
BASIS FOR COST ESTIMATE:												
KIPS					1	4.5					1	4.5
TOTAL					1	4.5					1	4.5

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AN/APY-1 RADAR SYSTEM, MF-116039

MODELS OF AIRCRAFT AFFECTED: A-3

DESCRIPTION/JUSTIFICATION: DURING DESIGN/PRODUCTION OF THE AN/APY-2 RADAR (AWACS STANDARD), 74 ITEMS WHICH WERE TO HAVE BEEN COMMON TO THE AN/APY-1 (AWACS CORE) WERE MODIFIED. THERE ARE NOW 15 CONFIGURATIONS ON THE 24 CORE AIRCRAFT, RESULTING IN OPERATIONAL AND SUPPORT DIFFICULTIES. MODIFICATION WILL BRING APY-1 ITEMS UP TO APY-2 CONFIGURATION AND ALLOW TWO-WAY INTERCHANGABILITY ON THE COMMON ITEMS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					2	3.2	22	6.1			24	9.3
BASIS FOR COST ESTIMATE:												
NONRECURRING					2	3.1					2	3.1
KITS							22	5.3			22	5.3
DATA						.1		.8				.9
TOTAL					2	3.2	22	6.1			24	9.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AVQ-30 WEATHER RADAR REPLACEMENT, MN-61065B

MODELS OF AIRCRAFT AFFECTED: E-3A

DESCRIPTION/JUSTIFICATION: MODIFY THE EXISTING SYSTEM, WHICH HAS RELIABILITY PROBLEMS AND LIMITED MAPPING CAPABILITY TO A NAVIGATION RADAR WHICH HAS: 1) A WEATHER AVOIDANCE CAPABILITY; CAPABLE OF DISPLAYING RADAR BEACONS AND SKIN PAINTS IN ORDER TO EFFECT AIR REFUELING RENDEZVOUS; AND 2) A GROUND MAPPING RADAR WHICH CAN BE USED FOR FIXING THE AIRCRAFT POSITIONED WITH 1 NM ACCURACY AND CAN BE USED TO MONITOR DEPARTURES AND APPROACHES. THE WEATHER RADAR CURRENTLY BEING INSTALLED ON THE C-141 AND C-5 AIRCRAFT WILL BE USED WHICH WILL INCREASE RELIABILITY FROM THE CURRENT 75 HOUR MEAN TIME BETWEEN FAILURE (MTBF) TO 500 HOURS MTBF AND PROVIDE THE DESCRIBED PERFORMANCE IMPROVEMENTS.

SCOPE OF PROGRAM:

	FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	13	1.9	16	2.2					34	4.1
NONRECURRING	2	.3							2	.3
ALTS	16	1.6	16	1.8					32	3.4
DATA				.2						.2
TRAINER				.1						.1
SUPPORT EQUIP.				.1						.1
TOTAL	15	1.9	16	2.2					34	4.1

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 21 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: SHF MULTIPLE R/T

MODELS OF AIRCRAFT AFFECTED: E-4

DESCRIPTION/JUSTIFICATION: PROVIDES ADDITIONAL RECEIVER/TRANSMITTER UNITS TO THE E-4B SHF TERMINAL TO ALLOW FIVE SIMULTANEOUS FULL DUPLEX SERVICES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QT	COST	QTY	COST
							1	5.4	2	5.6	3	11.0
BASIS FOR COST ESTIMATE:												
NONRECURRING								1.0				1.0
RATS							1	2.9	2	5.1	3	8.0
DATA								1.0		.5		1.5
SUPPORT EQUIP.								.5				.5
TOTAL							1	5.4	2	5.6	3	11.0

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 15 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AUTOMATIC DATA PROCESSING (ADP), MW-3060

MODELS OF AIRCRAFT AFFECTED: E-4B

DESCRIPTION/JUSTIFICATION: PROVIDES IMPROVED BATTLE STAFF MANAGEMENT CAPABILITY; CRITICAL AND TIME SENSITIVE INFORMATION TO THE NATIONAL COMMAND AUTHORITY; AND A CREDIBLE MEANS OF PROSECUTING THE SINGLE INTEGRATED OPERATIONAL PLAN (SIOP). ADP WILL ACCOMPLISH THIS BY REDUCING THE MANUAL MANIPULATION OF SIOP DATA. THE ADP SYSTEM WILL CONSIST OF MINI-COMPUTER, MASS STORAGE, DISPLAY DEVICES, PRINTERS AND INTERFACES TO ON-BOARD COMMUNICATIONS EQUIPMENT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	1	3.9	2	5.0	1	5.2					4	14.1
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	2.5				1.3					1	3.8
KITS			2	4.6	1	2.5					3	7.1
DATA				.4		.4						.8
SUPPORT EQUIP.		1.4				1.0						2.4
TOTAL	1	3.9	2	5.0	1	5.2					4	14.1

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 9 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AIDS SECURE DATA

MODELS OF AIRCRAFT AFFECTED: E-4B

DESCRIPTION/JUSTIFICATION: UPDATES THE E-4B SECURE DATA TERMINAL TO PROVIDE FOR COMPATIBILITY WITH THE EC-135 IMPROVED DATA TERMINAL. ENSURES AIR-TO-AIR TRANSMISSION/RECEPTION CAPABILITY AND PROVIDES FOR COMMON ERROR DETECTION/CORRECTION MODULATION SCHEMES.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							2	5.0	2	4.0	4	9.0
BASIS FOR COST ESTIMATE:												
NONRECURRING							1	2.8		.1	1	2.9
KITS							1	1.4	2	3.4	3	4.8
DATA								.6		.5		1.1
SUPPORT EQUIP.								.2				.2
TOTAL							2	5.0	2	4.0	4	9.0

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 22 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: KG-84 UPDATE

MODELS OF AIRCRAFT AFFECTED E-4B

DESCRIPTION/JUSTIFICATION: THIS PROGRAM WILL ADD A NEW KG-84 OR REPLACE AN EXISTING CRYPTO WITH A KG-84 TO SUPPORT NATIONAL COMMAND AUTHORITY CONNECTIVITY. THE MOD MUST BE PERFORMED IF THE E-4B IS GOING TO REMAIN COMPATIBLE WITH NCA COMMUNICATIONS ELEMENTS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	---	---	---	---	---	---	---	---	---	---	---
					4	2.9					4	2.9
BASIS FOR COST ESTIMATE:												
NONRECURRING						.8						.8
KITS					4	1.3					4	1.3
DATA						.8						.8
TOTAL					4	2.9					4	2.9

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 8 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CRASHWORTHY AUX FUEL TANKS, MN-61144A

MODELS OF AIRCRAFT AFFECTED: H-53

DESCRIPTION/JUSTIFICATION: THIS MODIFICATION REPLACES THE TWO 550 GALLON AUXILIARY FUEL TANKS WITH A CRASHWORTHY CONFIGURATION TO PROVIDE GREATER RESISTANCE TO CRASH AND BATTLE DAMAGE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTLAY		TOTAL	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	1	2.7			32	2.2					33	4.9
BASIS FOR COST ESTIMATE:												
NONRECURRING	1	2.6									1	2.6
KITS					32	2.2					32	2.2
DATA		.1										.1
TOTAL	1	2.7			32	2.2					33	4.9

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 7 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: IMPROVED NAVIGATIONAL SYSTEM, MW-11622B

MODELS OF AIRCRAFT AFFECTED: H-53

DESCRIPTION/JUSTIFICATION: RELIABILITY OF APN-175 DOPPLER IS VERY LOW FROM 10 TO 20 HOURS KTRF. THIS RELIABILITY IS UNSATISFACTORY IN HIGH STRESS, FAST REACTION RESCUE SITUATIONS. MODIFICATION OF THE EXISTING RADAR IS NOT CONSIDERED TO BE ECONOMICALLY FEASIBLE OR LOGISTICALLY SUPPORTABLE BECAUSE OF SYSTEM AGE. A RELIABLE REPLACEMENT DOPPLER IS REQUIRED TO ENSURE FULL MISSION CAPABILITY. TO INSURE THE PRECISION ACCURACY OF THE NEW DOPPLER IS FULLY UTILIZED, A NEW READING REFERENCE SYSTEM WILL BE INSTALLED. THIS NEW REFERENCE SYSTEM WILL REPLACE THE J-4 COMPASS SYSTEM, PRESENTLY IN USE.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					31	5.2					31	5.2
BASIS FOR COST ESTIMATE:												
NONRECURRING					1	.2					1	.2
KITS					30	3.8					30	3.8
DATA						.2						.2
SUPPORT EQUIP.						1.0						1.0
TOTAL					31	5.2					31	5.2

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR/FIELD TEAM
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: VINSON TAC SECURE VOICE, MN-3040

MODELS OF AIRCRAFT AFFECTED: MULTI AN/ARC-164

DESCRIPTION/JUSTIFICATION: VINSON SECURE VOICE PROVIDES ON-LINE ENCRYPTION/DECRYPTION OF VHF/UHF AM/FM HALF-DUPLEX RADIO FOR ALL CLASSIFICATION OF TRAFFIC. THE TSEC/KY-58 IS DESIGNED FOR OPERATION IN AIRCRAFT INSTRUMENT PANELS OR RADIO-CONSOLE CONTROL PANELS, OR IT MAY BE LOCATED IN EQUIPMENT BAYS AND OPERATED BY A REMOTE CONTROL UNIT (RCU). THIS MODIFICATION ENABLES THE AN/ARC-164 UHF RADIO TO OPERATE IN THE 25 KHZ BASEBAND MODE WITH THE VINSON EQUIPMENT.

SCOPE OF PROGRAM:

	PRIOR		FY-33		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	7313	8.3	8637	9.4	4000	5.9					20000	23.6
NONRECURRING		.6										.6
KITS	7313	7.5	8687	9.4	4000	5.9					20000	22.8
DATA		.2										.2
TOTAL	7313	8.3	8687	9.4	4000	5.9					20000	23.6

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/DEPOT TEAM(S)
LEAD TIME - 6 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT AIR FORCE

MODIFICATION TITLE AND NO. NAVSTAR GLOBAL POSITIONING SYSTEM (GPS)

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: THE GPS IS A SPACE BASED RADIO NAVIGATION SYSTEM THAT WILL PROVIDE SUITABLY EQUIPPED HOST VEHICLES WITH HIGHLY ACCURATE, JAM RESISTANT THREE-DIMENSIONAL POSITION, VELOCITY, AND TIME DATA WORLD WIDE IN ALL WEATHER TO IMPROVE MISSION EFFECTIVENESS. THIS MODIFICATION INSTALLS GPS USER EQUIPMENT IN VARIOUS TYPES OF AF AIRCRAFT.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:							47	19.7	338	354.7	935	374.4
NONRECURRING								1.6		46.2		46.8
WITS							47	11.4	335	197.5	335	208.9
DATA								3.4		24.2		27.6
SUPPORT EQUIP.								3.0		79.9		82.9
TRAINER								.3		7.3		3.2
TOTAL							47	19.7	338	354.7	935	374.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT/FIELD TEAM
LEAD TIME - 24 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: IMPROVED HAVE QUICK

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: IMPROVES THE JAM RESISTANCE OF THE HAVE QUICK RADIOS TO MEET UPDATED AND NEW JAMMING THREATS BY INCREASING THE POWER ON SELECTED PLATFORMS AND BY INCREASING THE NUMBER OF FREQUENCIES USED. MODIFICATIONS CONSIST OF A NEW MEMORY BOARD FOR THE ECCH PORTION OF EXISTING RADIOS AND A NEW 30 WATT POWER AMPLIFIER LRU ON SOME PLATFORMS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					1518	7.0					1518	7.0
BASIS FOR COST ESTIMATE:												
NONRECURRING						.7						.7
KITS					1518	.8					1518	.8
DATA						.8						.8
SUPPORT EQUIP.						.8						.8
AMPLIFIERS					(1038)	3.9					(1038)	3.9
TOTAL					1518	7.0					1518	7.0

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: STD. COMBINED ALTITUDE RADAR ALTIMETER, MN-10611C

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: REPLACES EXISTING RADAR ALTIMETER ON A VARIETY OF AIRCRAFT WITH A NEW SOLID STATE ALTIMETER. NEW ALTIMETER SYSTEM WILL MEET REQUIREMENTS OF ARINC SPECIFICATIONS FOR COMBINED ALTITUDE RADAR ALTIMETERS WITH A RELIABILITY GOAL GREATER THAN 2000 HOURS. FURTHER, WITH THE EXCEPTION OF C-130 SERIES AIRCRAFT, IT WILL BE A DIRECT REPLACEMENT WITH NO CHANGE TO AIRCRAFT WIRING (ONE NEW SYSTEM WILL REPLACE TWO EXISTING SYSTEMS FOR THE C-130 AIRCRAFT, NECESSITATING WIRING CHANGES). EXISTING SYSTEMS HAVE A LOW RELIABILITY AND HAVE HIGH LOGISTIC SUPPORT COSTS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	27	4.5	31	1.3	1148	15.5	1107	14.4	1960	14.6	4323	50.3
NONRECURRING	27	4.4									27	4.4
KITS			81	1.0	1148	11.7	1107	7.4	1960	14.5	4296	34.6
DATA				.3		*		*		.1		.4
SUPPORT EQUIP.		.1										.1
TRAINER/SIMULA.						3.8		7.0				10.8
TOTAL	27	4.5	31	1.3	1148	15.5	1107	14.4	1960	14.6	4323	50.3

METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 13 MONTHS

* LESS THAN \$ 50,000

**MODIFICATION OF AIRCRAFT
FY-84 PROGRAM**

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: HF SINGLE SIDE BAND RADIO, MN-16620C

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: THIS MOD INSTALLS THE AN/ARC-190(V) HF SSR RADIO. CURRENT RADIOS DO NOT MEET THE 1980 REQUIREMENTS FOR CHANNEL SPACING, FREQUENCY ACCURACY AND STABILITY AND PARKHILL COMPATIBILITY. THE ARC-123 AND AT-440 HAVE HIGH LOGISTICS SUPPORT COSTS DUE TO UNRELIABLE TUBE TYPE EQUIPMENTS, LOW MEAN TIME BETWEEN DEMAND, AND OBSOLETE DESIGN ON MANY SUB-ASSEMBLIES. STANDARDIZATION OF HF RADIOS WILL PROVIDE SUBSTANTIAL LOGISTICS COST REDUCTIONS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	527	32.0	697	19.7	838	35.4	497	24.9	2209	116.9	4768	226.9
NONRECURRING	13	5.5									13	5.5
KITS	514	17.7	697	19.0	838	33.2	497	22.4	2209	116.0	4755	208.3
DATA		4.3				1.1		1.0		.9		7.3
TRAINING		2.0		.3		1.1		1.0				4.4
SUPPORT EQUIP.		2.0		.4				.5				2.9
TOTAL	527	32.0	697	19.7	838	35.4	497	24.9	2209	116.9	4768	228.9

**METHOD OF IMPLEMENTATION: INSTALLATION - ORG/INTERMEDIATE
LEAD TIME - 12 MONTHS**

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: AN/APN-59E(V) RADAR IMPROVEMENT, MN-12619B

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: INCORPORATES THE FOLLOWING IMPROVEMENTS TO THE AN/APN-59E RADAR: (A) REDUCE THE HIGH RATE OF BURN SPOTS ON THE NAVIGATORS IP-239B INDICATOR, (B) ELIMINATE RANDOM HEADING MARKS (C) IMPROVE THE ANTENNA GIMBAL CAGE LATCHING MECHANISM, (D) REDUCE ANTENNA AZIMUTH MOTOR DRIVE TRANSISTOR FAILURE, (E) REDUCE MAGNETRON FAILURE, (F) REDUCE RECEIVER-TRANSMITTER THYRATRON FAILURE/FIRE POTENTIAL, (G) SUPPRESS TRANSMITTER FAILURES ON 28 VOLT DC LINE, (H) MAKE MINOR CHANGES TO THE RECEIVER TRANSMITTER TO REDUCE MAINTENANCE MAN-HOURS.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					6	.5	700	7.5	633	5.4	1339	13.4
BASIS FOR COST ESTIMATE:												
NONRECURRING					6	.5					6	.5
KITS							700	4.6	633	5.4	1333	10.0
DATA								.3				.3
SUPPORT EQUIP.								.3				.3
OTHER								1.3				1.3
SIMULATORS								1.0				1.0
TOTAL					6	.5	700	7.5	633	5.4	1339	13.4

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 17 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: TTU205 S.E. UPDATE, MW-22217B

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: UPDATES THE FIELD TEST SET PRESSURE AND TEMPERATURE TTU-205 TO STATE-OF-THE-ART BY INSTALLING HIGH RELIABILITY COMPONENTS. THE TTU-205 HAS A LOW MEAN TIME BETWEEN FAILURE (MTBF) DUE TO OPERATION IN EXTREME ENVIRONMENTAL CONDITIONS AND AGE OF TESTER COMPONENTS. INSTALLATION OF HIGH RELIABILITY COMPONENTS WILL INCREASE THE MTBF OF THE TESTER FROM 100 TO 1000 MTBF. THIS TESTER IS REQUIRED FOR TESTING ALL FIRST LINE AIRCRAFT PRIOR TO TAKE OFF.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
					480	10.4	470	13.7	600	14.2	1550	38.3
BASIS FOR COST ESTIMATE:												
NONRECURRING						.3						.3
KITS					480	10.0	470	13.7	600	14.2	1550	37.9
DATA						.1						.1
TOTAL					480	10.4	470	13.7	600	14.2	1550	38.3

METHOD OF IMPLEMENTATION: INSTALLATION - DEPOT
LEAD TIME - 12 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: STANDARD CENTRAL AIR DATA COMPUTER, MN-41652B

MODELS OF AIRCRAFT AFFECTED: MULTI

DESCRIPTION/JUSTIFICATION: REPLACES ELECTRO-MECHANICAL/ANALOG COMPUTERS IN A-7, C-141, C-5, F-4 AND THE F-111 WITH A NEW STANDARD CADC. THE NEW COMPUTER USES SOLID STATE SENSORS AND DIGITAL CIRCUITS AND ITS RELIABILITY/MAINTAINABILITY ARE GREATLY IMPROVED BY PROVIDING CAPABILITY TO PERFORM INTERNAL TESTS TO LOCALIZE FAULTS WITHIN THE DEFECTIVE MODULE.

SCOPE OF PROGRAM:

	PRICE		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
							442	30.5	2200	143.5	2642	174.0
BASIS FOR COST ESTIMATES:												
ADDS							442	25.8	2200	129.1	2642	154.9
DATA								2.7		1.6		4.3
SUPPORT EQUIP.								1.8		12.8		14.6
SIMULATORS								.2				.2
TOTAL							442	30.5	2200	143.5	2642	174.0

METHOD OF IMPLEMENTATION: INSTALLATION - DRS/INTERMEDIATE
LEAD TIME - 18 MONTHS

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CLASSIFIED PROJECTS

MODELS OF AIRCRAFT AFFECTED: MULTI-AIRCRAFT

DESCRIPTION/JUSTIFICATION: THESE FUNDS ARE REQUIRED TO PROVIDE FOR THE MODIFICATION OF VARIOUS AIRCRAFT AND AIRBORNE SYSTEMS USED IN CLASSIFIED MISSIONS, WHICH BECAUSE OF THEIR SENSITIVE NATURE, REQUIRE THE APPLICATION OF SPECIAL MANAGEMENT AND SECURITY SAFEGUARDS.

SCOPE OF PROGRAM:

	PHIO.		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	---	----	---	----	---	----	---	----	---	----	-----	-----
BASIS FOR COST ESTIMATE:		220.6		101.3		121.1		141.4		391.2		975.6
CLASSIFIED		220.6		101.3		121.1		141.4		391.2		975.6
TOTAL		220.6		101.3		121.1		141.4		391.2		975.6

MODIFICATION OF AIRCRAFT
FY-84 PROGRAM

FY-84 APPROPRIATION: AIRCRAFT PROCUREMENT, AIR FORCE

MODIFICATION TITLE AND NO: CARGO CONVERTIBILITY

MODELS OF AIRCRAFT AFFECTED: CRAF

DESCRIPTION/JUSTIFICATION: PROVIDES FUNDING TO ADD CARGO-CONVERTIBILITY FEATURES TO WIDE-BODY COMMERCIAL AIRCRAFT (B-747 AND/OR DC-10). THE MODIFICATIONS INCLUDE THE ADDITION OF A SIDE CARGO DOOR, STRENGTHENED FREIGHTER FLOOR, AND REMOVABLE POWERED CARGO HANDLING SYSTEM. MODIFIED AIRCRAFT WILL BE AVAILABLE FOR DOD USE THROUGH THE CIVIL RESERVE AIR FLEET. THEY WILL SUPPLEMENT OUR ORGANIC AIRLIFT CAPABILITY IN THE EVENT OF A NATIONAL EMERGENCY. THIS MODIFICATION REPLACES CURRENTLY INSTALLED VHF OMNI-DIRECTIONAL RANGE/INSTRUMENT LANDING SYSTEMS (VOR/ILS) TO PROVIDE A CAPABILITY TO READ SIGNALS FROM VOR/ILS GROUND EQUIPMENT BEING INSTALLED IN THE U.S. AND EUROPE WITH 50 KHZ CHANNEL SEPARATION.

SCOPE OF PROGRAM:

	PRIOR		FY-83		FY-84		FY-85		OUTYEAR		T O T A L	
	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
BASIS FOR COST ESTIMATE:	3	99.8			4	144.3	3	179.4	15	717.3	25	1140.8
AIRCRAFT	2	84.8			4	144.3	3	179.4	15	717.3	24	1125.8
DC-10	1	15.0									1	15.0
TOTAL	3	99.8			4	144.3	3	179.4	15	717.3	25	1140.8

METHOD OF IMPLEMENTATION: INSTALLATION - CONTRACTOR
LEAD TIME - 18 MONTHS